

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-1<br>4/29/86 | MW-1<br>7/22/86 | MW-1<br>10/23/89 | MW-1<br>10/24/95 | MW-1<br>9/21/99 | MW-1<br>3/28/00 | MW-1<br>4/25/08 | MW-2<br>4/29/86 | MW-2<br>7/22/86 | MW-2<br>1/29/92 | MW-2<br>6/22/93 | MW-2<br>7/13/94 | MW-2<br>10/27/95 | MW-2<br>7/17/96 | MW-2<br>10/22/97 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                  |                  | 190000          | 190000          |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 | 170000           | 190000           | 190000          | 190000          |                 |                 |                 |                 |                 |                 | 11000            |                 |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Bromide                          |                            |                          |                           |                          |                      | 1 U             | 2 U             |                  | 500 U            |                 |                 |                 | 1 U             | 2 U             | 2 U             | 2 U             | 2 U             | 1800             |                 |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      |                 |                 |                  | 5000 U           | 7500            | 16000           |                 |                 |                 |                 |                 |                 | 51000            |                 |                  |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                 |                 |                  | 20               |                 |                 |                 |                 |                 |                 |                 |                 | 10               |                 |                  |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    |                      |                 |                 |                  | 400              |                 |                 |                 |                 |                 |                 |                 |                 | 9900             |                 |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                  | 3000 U           | 1000 U          | 3600            |                 |                 |                 |                 |                 |                 | 11000            |                 |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Cyanide, Free                    | 200                        | 200                      | 200                       | 1.5                      |                      |                 | 5               |                  | 5 U              | 10 U            | 10 U            | 10 U            |                 | 12              | 16              | 20              | 5 U             | 2800             | 1700            | 1500             |
| Cyanide, Total                   | 200                        | 200                      |                           | 1.5                      |                      | 40              | 20 U            |                  | 5 U              | 10 U            | 10 U            | 10 U            | 1060            | 1040            | 1500            | 120             | 1900            | 2800             | 1700            | 1500             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                  | 5000 U           |                 |                 |                 |                 |                 |                 |                 |                 | 5000 U           |                 |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 | 9100             |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 | 170000           | 180000           | 180000          | 200000          |                 |                 |                 |                 |                 |                 | 55000            |                 |                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| pH                               |                            |                          |                           |                          |                      | 11.31 SU        | 7.74 SU         |                  | 7.72 SU          |                 |                 |                 | 5.12 SU         |                 |                 |                 |                 | 5.74 SU          |                 |                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                  | 500              |                 |                 |                 |                 |                 |                 |                 |                 | 700              |                 |                  |
| Specific Conductance             |                            |                          |                           |                          |                      | 325 umhos/cm    |                 |                  | 430 umhos/cm     |                 |                 |                 | 340 umhos/cm    |                 |                 |                 |                 | 360 umhos/cm     |                 |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      | 17 C            |                 |                  |                  |                 |                 |                 | 13.5 C          |                 |                 |                 |                 |                  |                 |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 | 200000           | 220000           | 210000          | 230000          |                 |                 |                 |                 |                 |                 | 220000           |                 |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 | 21000            |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1016                    | 2.6                        | 7.2                      | 0.5                       | 1.1                      |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1221                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1232                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1242                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1248                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1254                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Arochlor-1260                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| PCBs (Total)                     | 0.5                        | 0.5                      | 0.5                       | 0.19                     |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                  |                 |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-2<br>12/9/98 | MW-2<br>9/21/99 | MW-2<br>3/20/00 | MW-2<br>3/30/00 | MW-2<br>6/21/01 | MW-2<br>6/14/02 | MW-2<br>6/4/03 | MW-2<br>6/10/04 | MW-2<br>6/21/05 | MW-2<br>6/23/06 | MW-2<br>6/28/07 | MW-2<br>5/8/08 | MW-2<br>9/17/08 | MW-2<br>6/24/09 | MW-2<br>6/25/10 | MW-2<br>6/29/11 | MW-2<br>9/3/13 | MW-2<br>10/14/14 | MW-3<br>4/29/86 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|------------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                 | 18000           |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                 | 18000           |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Bromide                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  | 1 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                 | 45000           |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                 | 12000           |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 200             | 300             | 356             | 360             | 852             | 43              | 247            | 220             | 280             | 11              | 14              | 100 J          | 100 J           | 100 J           | 45              | 2 U             | 12             | 2 U              |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 1600            | 2300            | 10.1            | 10              | 3920            | 1470            | 1670           | 1000            | 490             | 1390            | 1280            | 1300           | 930             | 980             | 660             | 670             | 370            | 590              | 7               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                 | 50000           |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  | 5.26 SU         |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  | 68 umhos/cm     |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  | 19 C            |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                 | 190000          |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 | 124000          |                |                  |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                 |                 |                 |                 |                |                  |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-3<br>7/22/86 | MW-3<br>4/15/87 | MW-3<br>9/22/99 | MW-3<br>3/20/00 | MW-3<br>4/3/00 | MW-3<br>5/7/08 | MW-3<br>9/11/13 | MW-3<br>9/11/13 | MW-3<br>10/14/14 | MW-3<br>10/14/14 | MW-4<br>4/29/86 | MW-4<br>7/22/86 | MW-4<br>2/28/91 | MW-4<br>9/28/99 | MW-4<br>3/29/00 | MW-5<br>4/29/86 | MW-5<br>7/22/86 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 | 9900            |                 | 9800           |                |                 |                 | 10000 B          |                  |                 |                 |                 | 8400            | 9800            |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 | 5000 U           |                  |                 |                 |                 |                 |                 |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 | 9900            |                 | 9800           |                |                 | 13000 B         | 10000 B          |                  |                 |                 |                 | 8400            | 9800            |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             | 2 U             |                 |                 |                |                |                 |                 |                  |                  | 1 U             | 2 U             | 2 U             |                 |                 | 1 U             | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                 | 20000           | 14000          |                | 26000 B         | 28000           |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 | 50000           | 58000           |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                 |                 |                |                | 5200            | 5500            |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 | 1000 U          |                 | 2000 U         |                | 1800            | 1200            |                  |                  |                 |                 |                 | 5500            | 7600            |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                | 3000 U          | 3000 UJ         |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 7               | 5 U             | 10 U            | 0 U             | 10 U           | 10 U           |                 |                 |                  |                  |                 |                 |                 | 10 U            | 10 U            |                 | 7               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 20 U            | 5 U             | 10 U            | 0 U             | 10 U           | 10 U           |                 |                 |                  |                  | 4 U             | 20 U            |                 | 10 U            | 10 U            | 4 U             | 20 U            |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 | 22000            |                  |                 |                 |                 |                 |                 |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 | 0.50 U          |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 | 0.50 U          |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 | 33000           |                 | 32000          |                |                 |                 |                  |                  |                 |                 |                 | 50000           | 60000           |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 | 0.11 J          |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  | 5.36 SU          |                 |                 |                 |                 |                 | 6.26 SU         |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  | 270.00 umhos/cm  |                 |                 |                 |                 |                 | 380 umhos/cm    |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  | 16.00 C          |                 |                 |                 |                 |                 | 18 C            |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 | 130000          |                 | 95000          |                |                 |                 |                  |                  |                 |                 |                 | 130000          | 180000          |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 | 670 J B         | 600 J            |                  |                 |                 |                 |                 |                 |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                |                 |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-5<br>12/11/98 | MW-5<br>9/14/99 | MW-5<br>3/24/00 | MW-5 Dup<br>3/24/00 | MW-5<br>6/19/01 | MW-5<br>6/11/02 | MW-5<br>4/24/08 | MW-5<br>9/5/08 | MW-6<br>5/15/86 | MW-6<br>7/22/86 | MW-6<br>4/28/94 | MW-6<br>7/11/94 | MW-6<br>12/11/98 | MW-6<br>9/21/99 | MW-6<br>3/23/00 | MW-6<br>6/19/01 | MW-6<br>6/11/02 | MW-6<br>4/25/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-----------------|-----------------|---------------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  | 420000          | 330000          | 320000              |                 |                 |                 |                |                 |                 |                 |                 |                  | 280000          | 250000          |                 |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  | 420000          | 320000          |                     |                 |                 |                 |                |                 |                 | 230000          | 250000          |                  | 280000          | 250000          |                 |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                | 1 U             | 2 U             |                 |                 |                  |                 |                 |                 |                 |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  | 7500            | 12000           |                     |                 |                 |                 |                |                 |                 |                 |                 |                  | 20000           | 21000           |                 |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                  | 31000           | 44000           | 41000               |                 |                 |                 |                |                 |                 |                 |                 |                  | 63000           | 80000           |                 |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U              | 10 U            | 10 U            |                     | 0 U             | 0 U             | 10 U            | 10 U           |                 | 5 U             | 5 U             | 5 U             | 0 U              | 10 U            | 10 U            | 0 U             | 0 U             | 2.2 B           |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U              | 10 U            | 10 U            |                     | 0 U             | 0 U             | 10 U            | 10 U           | 20 U            | 20 U            | 5 U             | 5 U             | 0 U              | 10 U            | 10 U            | 0 U             | 0 U             | 2 B             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  | 430000          | 340000          | 350000              |                 |                 |                 |                |                 |                 | 350000          | 370000          |                  | 320000          | 280000          |                 |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 | 7.33 SU         | 7.34 SU         |                  |                 | 7 SU            |                 |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  | 480000          | 420000          | 430000              |                 |                 |                 |                |                 |                 | 510000          | 620000          |                  | 440000          | 420000          |                 |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 | 5000 U          | 37000           |                  |                 |                 |                 |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 | 5.8 N.T.U.      | 79 N.T.U.       |                  |                 |                 |                 |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                 |                 |                     |                 |                 |                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-6<br>9/8/08 | MW-7<br>4/29/86 | MW-7<br>7/22/86 | MW-7<br>10/23/89 | MW-7<br>2/28/91 | MW-7<br>4/28/94 | MW-7<br>7/11/94 | MW-7<br>9/28/99 | MW-7<br>4/5/00 | MW-7<br>5/19/08 | MW-7<br>10/1/08 | MW-7<br>6/29/10 | MW-7<br>9/19/13 | MW-7<br>9/19/13 | MW-7<br>3/19/14 | MW-7<br>5/7/14 | MW-7<br>6/3/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 | 17              |                 |                 |                |                |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 | 300000          | 310000         |                 |                 |                 |                 |                 | 200000 B        | 230000 B       | 270000         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 | 5000 U          | 5000 U         | 5000 U         |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                |                 |                 | 320000           |                 | 290000          | 300000          | 300000          | 310000         |                 |                 |                 |                 | 230000 B        | 200000 B        | 230000 B       | 270000 B       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Bromide                          |                            |                          |                           |                          |                      |                | 1 U             | 2 U             |                  | 2 U             | 5 U             | 20 U            |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Chloride                         |                            | 250000                   |                           |                          |                      |                |                 |                 |                  |                 |                 |                 | 82000           | 60000          |                 |                 |                 | 130000          |                 | 140000          | 200000         | 250000 B       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 | 4000            |                 | 5400            | 5100 B         | 1100           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Sulfate                          |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 | 44000           | 38000          |                 |                 |                 |                 |                 | 30000           | 30000          | 31000 B        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 | R               |                 |                |                |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U           |                 | 5 U             |                  |                 | 5 U             | 5 U             | 10 U            | 10 U           | 2.7 B J         | 10 U            |                 |                 |                 |                 |                |                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 8.9 B          | 10 U            | 20 U            |                  |                 | 5 U             | 5 U             | 10 U            | 10 U           | 1.7 B J         | 10 U            |                 |                 |                 |                 |                |                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Carbonate                        |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                |                 |                 | 6000             |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Ethane                           |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Ethene                           |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                |                 |                 | 360000           |                 | 530000          | 440000          | 400000          | 350000         |                 |                 |                 |                 |                 |                 |                |                |
| Methane                          |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| pH                               |                            |                          |                           |                          |                      |                | 6.79 SU         |                 | 7.07 SU          |                 | 6.84 SU         | 7.19 SU         |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Silica                           |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Specific Conductance             |                            |                          |                           |                          |                      |                |                 | 650 umhos/cm    |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Temperature (C)                  |                            |                          |                           |                          |                      |                |                 | 18.5 C          |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                |                 |                 | 400000           |                 | 860000          | 740000          | 580000          | 500000         |                 |                 |                 | 965000          |                 |                 |                |                |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                |                 |                 | 8000             |                 | 5000 U          | 5000 U          |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Turbidity                        |                            |                          |                           |                          |                      |                |                 |                 |                  |                 | 3.5 N.T.U.      | 1.8 N.T.U.      |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 | 1300 B          |                |                |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                 |                 |                 |                 |                |                |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-7<br>7/2/14 | MW-7<br>8/5/14 | MW-7<br>9/9/14 | MW-7<br>10/7/14 | MW-7<br>10/29/14 | MW-7<br>10/29/14 | MW-7<br>1/15/15 | MW-7<br>2/26/15 | MW-7<br>3/25/15 | MW-7<br>4/22/15 | MW-7<br>5/19/15 | MW-8<br>4/29/86 | MW-8<br>7/22/86 | MW-8<br>9/29/99 | MW-8<br>4/4/00 | MW-8<br>5/19/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------|----------------|----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                |                |                |                 |                  | 7.2              |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 200000         | 220000 B       | 270000 B       | 270000 B        | 270000 B         |                  | 110000 B        | 280000 B        | 230000 B        | 260000 B        | 140000 B        |                 |                 |                 |                | 290000          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U         | 5000 U         | 5000 U         | 5000 U          | 5000 U           |                  | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U          |                 |                 |                 |                |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 200000         | 220000 B       | 270000 B       | 270000 B        | 270000 B         |                  | 110000 B        | 280000 B        | 230000 B        | 260000 B        | 140000 B        |                 |                 |                 |                | 290000          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Bromide                          |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 | 1 U             | 2 U             |                 |                |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      | 180000 B       | 220000         | 220000 B       | 280000 B        | 260000 B         |                  | 76000           | 170000 B        | 120000 B        | 120000          | 56000           |                 |                 | 57000           | 180000         |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2100           | 4200           | 4000           | 5200            | 6700 B           |                  | 5100 B          | 5200            | 3500 B          | 3900            | 1400 B          |                 |                 |                 |                |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Sulfate                          |                            |                          |                           |                          |                      | 23000          | 25000          | 32000 B        | 37000 B         | 39000 B          |                  | 18000           | 39000           | 35000           | 30000           | 13000           |                 |                 | 27000           | 32000          |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                |                |                |                 | 3000 U           |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 | 5 U             | 10 U            | 10 U           | 10 U            |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 | 560             | 20 U            | 10 U            | 10 U           | 2.1 B J         |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                |                |                |                 | 9100 J           |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Ethane                           |                            |                          |                           |                          |                      |                |                |                |                 | 0.50 U           |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Ethene                           |                            |                          |                           |                          |                      |                |                |                |                 | 0.50 U           |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 | 310000          | 420000         |                 |
| Methane                          |                            |                          |                           |                          |                      |                |                |                |                 | 0.16 J           |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| pH                               |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 | 6.92 SU         |                 |                 |                 |                |                 |
| Silica                           |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 | 625 umhos/cm    |                 |                 |                 |                |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 | 20 C            |                 |                 |                 |                |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 | 460000          | 760000         |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                |                |                |                 | 1500             |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                |                |                |                 |                  |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-8<br>6/18/10 | MW-9<br>12/4/86 | MW-9<br>4/15/87 | MW-9<br>6/16/05 | MW-9<br>5/9/08 | MW-9<br>9/12/13 | MW-9<br>9/12/13 | MW-9<br>10/16/14 | MW-9<br>10/16/14 | MW-10<br>12/4/86 | MW-10<br>4/15/87 | MW-10<br>6/22/93 | MW-10<br>7/15/94 | MW-10<br>7/16/96 | MW-10<br>10/22/97 | MW-10<br>12/8/98 | MW-10<br>3/27/00 | MW-10<br>6/22/01 | MW-10<br>6/14/02 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  | 80000 B          |                  |                  |                  |                  |                  |                   |                  |                  |                  | 93000            |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  | 5000 U           |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 | 66000 B         | 80000 B          |                  |                  |                  |                  |                  |                  |                   |                  |                  | 93000            |                  |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Bromide                          |                            |                          |                           |                          |                      |                 | 2 U             | 2 U             |                 |                |                 |                 |                  |                  | 2 U              | 2 U              | 10 U             | 10 U             |                  |                   |                  |                  |                  |                  |  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                 |                 |                | 91000 B         |                 | 89000            |                  |                  |                  |                  |                  |                  |                   |                  |                  | 13000            |                  |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                 |                 |                | 100 U           |                 | 6.3 J            |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 | 12000           | 13000            |                  |                  |                  |                  |                  |                  |                   |                  | 12000            |                  |                  |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                | 3000 U          | 3000 U          |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                 | 5 U             | 10 U            | 10 U           |                 |                 |                  |                  |                  | 5 U              | 5 U              | 10 U             | 5 U              | 0 U               | 0 U              | 10 U             | 0 U              | 0 U              |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 | 5 U             | 5 U             | 10 U            | 10 U           |                 |                 |                  |                  | 5 U              | 5 U              | 5 U              | 5 U              | 5 U              | 0 U               | 0 U              | 10 U             | 0 U              | 0 U              |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 | 9700             |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 | 0.50 U           |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 | 0.50 U           |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  | 87000            |                  |                  |  |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 | 23               |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 | 809000         |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  | 140000           |                  |                  |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 | 600 J B          | 710 J            |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                |                 |                 |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-10<br>6/16/05 | MW-10<br>5/9/08 | MW-10<br>9/22/08 | MW-10<br>6/24/10 | MW-11<br>5/26/87 | MW-11<br>10/31/90 | MW-11<br>2/6/91 | MW-11<br>4/25/91 | MW-11<br>6/16/05 | MW-11<br>4/24/08 | MW-12<br>5/26/87 | MW-12<br>10/31/90 | MW-12<br>2/6/91 | MW-12<br>4/25/91 | MW-12<br>1/29/92 | MW-12<br>6/22/93 | MW-12<br>7/18/96 | MW-12<br>10/23/97 | MW-12<br>12/8/98 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-----------------|------------------|------------------|------------------|-------------------|-----------------|------------------|------------------|------------------|------------------|-------------------|-----------------|------------------|------------------|------------------|------------------|-------------------|------------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                 |                  |                  | 2 U              | 1 U               | 2 U             | 2 U              |                  |                  | 2 U              | 1 U               | 2 U             | 2 U              | 2 U              | 2 U              |                  |                   |                  |  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 10 U            | 10 U             |                  | 5 U              |                   |                 |                  | 10 U             | 2.8 B            | 5 U              |                   |                 |                  | 5 U              | 5 U              | 5 U              | 0 U               | 0 U              |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 1.9 B           | 10 U             |                  | 5 U              |                   |                 |                  | 10 U             | 10 U             | 5 U              |                   |                 |                  | 5 U              | 5 U              | 5 U              | 0 U               | 0 U              |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Methane                          |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| pH                               |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Silica                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                 |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                 |                  |                  |                  |                  |                   |                  |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-12<br>9/20/99 | MW-12<br>4/3/00 | MW-12<br>6/20/01 | MW-12<br>6/18/02 | MW-12<br>5/6/08 | MW-12<br>9/16/08 | MW-12<br>9/12/13 | MW-12<br>9/12/13 | MW-12<br>10/17/14 | MW-12<br>10/17/14 | MW-14<br>5/28/87 | MW-14<br>4/24/08 | MW-15<br>5/28/87 | MW-15<br>5/8/08 | MW-15<br>9/26/08 | MW-16D<br>4/5/88 | MW-16D<br>4/8/88 | MW-16D<br>4/8/88 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-----------------|------------------|------------------|-----------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 14000            | 23000           |                  |                  |                 |                  |                  |                  | 32000 B           |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  | 5000 U            |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 14000            | 23000           |                  |                  |                 |                  | 50000 B          | 32000 B          |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   | 2 U              |                  | 2 U              |                 |                  | 2 U              |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  | 5000 U          |                  |                  |                 |                  |                  | 2900 B           | 3000              |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                 |                  |                  |                 |                  | 100 U            | 570              |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 7100             | 9400            |                  |                  |                 |                  |                  | 16000            | 13000             |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  | 3000 U           | 3000 U           |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 10 U            | 0 U              | 0 U              | 3.7 B           | 1.6 B J          |                  |                  |                   |                   | 5 U              | 10 U             | 5 U              | 29 J            | 10 U             |                  | 50 U             | 50 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 10 U            | 0 U              | 0 U              | 10 U            | 10 U             |                  |                  |                   |                   | 5 U              | 10 U             | 5 U              | 10 U            | 10 U             |                  | 5 U              | 5 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  | 8400              |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  | 0.50 U            |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  | 0.50 U            |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 33000            | 16000           |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  | 0.93              |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 56000            | 60000           |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  | 490 J B          | 480 J             |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                 |                  |                  |                 |                  |                  |                  |                   |                   |                  |                  |                  |                 |                  |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-16D<br>5/13/08 | MW-16D<br>6/16/10 | MW-16S<br>4/5/88 | MW-16S<br>4/8/88 | MW-16S<br>5/15/08 | MW-16S<br>10/2/08 | MW-16S<br>6/28/10 | MW-17<br>5/27/87 | MW-17<br>1/30/92 | MW-17<br>6/24/93 | MW-17<br>7/14/94 | MW-17<br>7/16/96 | MW-17<br>10/22/97 | MW-17<br>12/10/98 | MW-17<br>9/14/99 | MW-17<br>3/23/00 | MW-17<br>6/20/01 | MW-17<br>6/11/02 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  | 52000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   | 52000            | 52000            |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   | 2 U              |                  |                   |                   |                   | 2 U              | 10 U             | 1 U              | 1 U              |                  |                   |                   |                  |                  |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   | 10000            | 12000            |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   | 1000 U           | 2500             |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 14 J              |                   |                  | 50 U             | 10 U              | 10 U              |                   | 5 U              | 5 U              | 5 U              | 5 U              | 5 U              | 0 U               | 0 U               | 10 U             | 10 U             | 0 U              | 0 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              |                   |                  | 5 U              | 10 U              | 10 U              |                   | 5 U              | 5 U              | 10 U             | 5 U              | 5 U              | 0 U               | 0 U               | 10 U             | 10 U             | 0 U              | 0 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   | 73000            | 83000            |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  | 6.44 SU          |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   | 293000           |                  |                   |                   | 494000            |                  |                  |                  |                  |                  |                   |                   | 110000           | 130000           |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                  |                   |                   |                   |                  |                  |                  |                  |                  |                   |                   |                  |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-17<br>4/28/08 | MW-17<br>9/12/08 | MW-17<br>6/18/10 | MW-18D<br>4/5/88 | MW-18D<br>4/8/88 | MW-18D<br>4/23/08 | MW-18D<br>10/7/08 | MW-18D<br>7/1/10 | MW-18D<br>9/10/13 | MW-18D<br>9/10/13 | MW-18D<br>10/23/14 | MW-18D<br>10/23/14 | MW-18S<br>4/8/88 | MW-18S<br>5/1/08 | MW-18S Dup<br>5/1/08 | MW-18S<br>10/3/08 | MW-18S<br>6/29/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|----------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   | 150000 B           |                    |                  |                  |                      |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 5000 U            |                    |                    |                  |                  |                      |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  | 120000 B          | 150000 B          |                    |                    |                  |                  |                      |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  | 2 U              |                  |                   |                   |                  |                   |                   |                    |                    | 20 U             |                  |                      |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  | 7900              | 9500              |                    |                    |                  |                  |                      |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                  |                  |                   |                   |                  | 100 U             | 100 U             |                    |                    |                  |                  |                      |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  | 18000             | 18000             |                    |                    |                  |                  |                      |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  | 3000 U            | 3000 U            |                    |                    |                  |                  |                      |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 1.6 B J          | 1.6 B J          |                  |                  |                  |                   |                   |                  | 50 U              | 10 U              | 2.2 B              |                    |                  |                  | 50 U                 | 10 U              | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 1.8 B J          |                  |                  | 5 U              | 2.4 B J           | 10 U              |                  |                   |                   |                    |                    | 5 U              | 10 U             | 6.5 B                | 10 U              |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 5500              |                    |                    |                  |                  |                      |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 0.50 U            |                    |                    |                  |                  |                      |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 0.50 U            |                    |                    |                  |                  |                      |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 1.3               |                    |                    |                  |                  |                      |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  | 152000           |                  |                  |                   |                   |                  | 184000            |                   |                    |                    |                  |                  |                      |                   | 181000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   | 570 J B           | 580 J              |                    |                  |                  |                      |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                   |                  |                   |                   |                    |                    |                  |                  |                      |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-18S<br>9/9/13 | MW-18S<br>9/9/13 | MW-18S<br>10/23/14 | MW-18S<br>10/23/14 | MW-19<br>5/27/87 | MW-19<br>9/22/99 | MW-19<br>4/3/00 | MW-19<br>5/14/08 | MW-20D<br>4/8/88 | MW-20D<br>5/7/08 | MW-20D<br>9/5/08 | MW-20M<br>4/8/88 | MW-20M<br>5/19/08 | MW-20M<br>9/11/08 | MW-20S<br>4/8/88 | MW-20S<br>10/31/90 | MW-20S<br>2/7/91 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|--------------------|--------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|--------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  | 98000           | 110000           |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 130000 B         |                  | 160000 B           |                    |                  |                  | 98000           | 110000           |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                    |                    | 2 U              |                  |                 |                  | 2 U              |                  |                  | 20 U             |                   |                   | 10 U             | 5 U                | 10 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      | 8000             |                  | 9900               |                    |                  | 7500             | 5000 U          |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 62 J             |                  | 100 U              |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 17000            |                  | 20000              |                    |                  | 11000            | 12000           |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      | 3000 U           |                  | 3000 U             |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                    |                    | 5 U              | 10 U             | 10 U            | 3 B J            | 50 U             | 10 U             | 10 U             |                  |                   | 1.8 B J           | 2.2 B J          | 50 U               |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                    |                    | 5 U              | 10 U             | 10 U            | 10 U             | 5 U              | 10 U             | 10 U             |                  |                   | 10 U              | 10 U             | 5 U                |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  | 1400               |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  | 0.50 U             |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  | 0.50 U             |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  | 120000           | 130000          |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                  | 3.5                |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  | 160000           | 160000          |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  | 670 J B            |                    | 1200             |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                    |                    |                  |                  |                 |                  |                  |                  |                  |                  |                   |                   |                  |                    |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-20S<br>4/25/91 | MW-20S<br>5/20/08 | MW-20S<br>10/1/08 | MW-21<br>5/27/87 | MW-21<br>10/26/95 | MW-21<br>9/22/99 | MW-21<br>3/31/00 | MW-22<br>5/28/87 | MW-22<br>10/23/89 | MW-22<br>10/25/95 | MW-22<br>9/22/99 | MW-22<br>3/29/00 | MW-22 Dup<br>3/29/00 | MW-22<br>4/28/08 | MW-23<br>5/28/87 | MW-23<br>5/29/87 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|------------------|----------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   | 71000            | 10000            |                  |                   |                   | 18000            | 14000            |                      |                  |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   |                  | 81000             | 71000            | 10000            |                  | 21000             | 20000             | 18000            | 14000            |                      |                  |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      | 10 U              |                   |                   | 2 U              | 500 U             |                  |                  | 2 U              |                   | 500 U             |                  |                  |                      |                  |                  | 2 U              |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                   |                  | 5600              | 5000 U           | 5000 U           |                  |                   | 7400              | 7500             | 5000 U           |                      |                  |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                  | 70                |                  |                  |                  |                   | 30                |                  |                  |                      |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                  | 2800              |                  |                  |                  |                   | 2900              |                  |                  |                      |                  |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   |                  | 3000 U            | 1000 U           | 4800             |                  |                   | 15000             | 16000            | 21000            | 20000                |                  |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   | 10 U              | 10 U              | 5 U              | 5 U               | 10 U             | 10 U             | 5 U              |                   | 10                | 10 U             | 10 U             |                      | 2.1 B J          | 5 U              | 25 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   | 2.3 B J           | 10 U              | 5 U              | 5 U               | 10 U             | 10 U             | 5 U              |                   | 10                | 10 U             | 10 U             |                      | 2.6 B            | 5 U              | 5 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                  | 5000 U            |                  |                  |                  |                   | 5000 U            |                  |                  |                      |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  | 9000              |                   |                  |                  |                      |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                  | 90000             | 87000            | 5000             |                  | 46000             | 44000             | 43000            | 32000            | 34000                |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                  | 7.73 SU           |                  |                  |                  | 6.51 SU           | 6.43 SU           |                  |                  |                      |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                  | 400               |                  |                  |                  |                   | 400               |                  |                  |                      |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                  | 230 umhos/cm      |                  |                  |                  |                   | 140 umhos/cm      |                  |                  |                      |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  | 140000            | 130000           | 40000            |                  | 110000            | 82000             | 60000            | 75000            | 56000                |                  |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  | 22000             |                   |                  |                  |                      |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                  |                  |                  |                   |                   |                  |                  |                      |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-23<br>10/25/95 | MW-23<br>9/22/99 | MW-23<br>3/27/00 | MW-24<br>5/28/87 | MW-24<br>10/25/95 | MW-24<br>9/22/99 | MW-24<br>3/31/00 | MW-25<br>5/27/87 | MW-25<br>9/27/99 | MW-25<br>3/23/00 | MW-26<br>5/26/87 | MW-26<br>2/28/91 | MW-26<br>9/27/99 | MW-26<br>4/3/00 | MW-26<br>5/5/08 | MW-26<br>9/29/08 | MW-27<br>5/29/87 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   | 120000           | 92000            |                  |                   | 150000           | 110000           |                  | 9700             | 29000            |                  |                  |                  | 95000           |                 |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 110000            | 120000           | 92000            |                  | 170000            | 150000           | 110000           |                  | 9700             | 29000            |                  |                  |                  | 95000           |                 |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      | 500 U             |                  |                  | 2 U              | 500 U             |                  |                  | 2 U              |                  |                  | 2 U              | 20 U             |                  |                 |                 | 2 U              |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      | 5800              | 7500             | 5300             |                  | 13000             | 10000            | 6500             |                  | 7500             | 7000             |                  |                  | 25000            | 11000           |                 |                  |                  |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  | 50                |                  |                  |                  | 130               |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 2600                 |                   |                  |                  |                  | 10000             |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 6300              | 6600             | 7300             |                  | 3000 U            | 17000            | 3100             |                  | 15000            | 19000            |                  |                  | 30000            | 30000           |                 |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Cyanide, Free                    | 200                        | 200                      | 200                       | 1.5                      | 5 U                  | 10 U              | 10 U             | 5 U              | 5 U              | 10 U              | 10 U             | 5 U              | 10 U             | 10 U             | 5 U              |                  |                  | 10 U             | 10 U            | 10 U            | 10 U             | 5 U              |
| Cyanide, Total                   | 200                        | 200                      |                           | 1.5                      | 5 U                  | 10 U              | 10 U             | 5 U              | 5 U              | 10 U              | 10 U             | 5 U              | 10 U             | 10 U             | 5 U              |                  |                  | 10 U             | 10 U            | 10 U            | 10 U             | 5 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U            |                  |                  |                  | 5000 U            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 120000            | 130000           | 93000            |                  | 210000            | 190000           | 110000           |                  | 57000            | 60000            |                  |                  | 250000           | 130000          |                 |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| pH                               |                            |                          |                           |                          |                      | 7.83 SU           |                  |                  |                  | 7.37 SU           |                  |                  |                  | 5.81 SU          |                  |                  |                  |                  |                 |                 |                  |                  |
| Silica                           |                            |                          |                           |                          |                      | 400               |                  |                  |                  | 400               |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      | 310 umhos/cm      |                  |                  |                  | 520 umhos/cm      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 180000            | 170000           | 130000           |                  | 270000            | 240000           | 140000           |                  | 63000            | 95000            |                  |                  | 210000           | 180000          |                 |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1016                    | 2.6                        | 7.2                      | 0.5                       | 1.1                      |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1221                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1232                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1242                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1248                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1254                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Arochlor-1260                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| PCBs (Total)                     | 0.5                        | 0.5                      | 0.5                       | 0.19                     |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-27<br>1/31/92 | MW-27<br>9/27/99 | MW-27<br>4/5/00 | MW-27<br>5/14/08 | MW-27<br>9/30/08 | MW-28<br>5/29/87 | MW-28<br>10/31/90 | MW-28<br>2/6/91 | MW-28<br>4/25/91 | MW-28<br>10/26/95 | MW-28<br>9/28/99 | MW-28<br>3/24/00 | MW-28<br>5/8/08 | MW-29<br>6/2/87 | MW-29<br>10/25/95 | MW-29<br>9/1/99 | MW-29<br>3/22/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|-----------------|------------------|------------------|------------------|-------------------|-----------------|------------------|-------------------|------------------|------------------|-----------------|-----------------|-------------------|-----------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   | 140000           | 140000           |                 |                 |                   | 230000          | 150000           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  | 180000            | 140000           | 140000           |                 |                 | 150000            | 230000          | 150000           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Bromide                          |                            |                          |                           |                          |                      | 2 U              |                  |                 |                  |                  |                  |                   | 1 U             | 200 U            | 200 U             | 910              |                  |                 | 2 U             | 3800              |                 |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  | 45000            | 60000           |                  |                  |                  |                   |                 |                  |                   | 79000            | 150000           | 220000          |                 | 470000            | 640000          | 2.10E+06         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   | 40               |                  |                 |                 | 10 U              |                 |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   | 4400             |                  |                 |                 | 3700              |                 |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                  | 37000            | 50000           |                  |                  |                  |                   |                 |                  |                   | 22000            | 34000            | 33000           |                 | 12000             | 14000           | 22000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U              | 10 U             | 10 U            | 10 U             | 10 U             | 5 U              |                   |                 |                  | 5 U               | 10 U             | 10 U             | 2.3 B J         | 5 U             | 5 U               | 10 U            | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U              | 10 U             | 10 U            | 10 U             | 10 U             | 10               |                   |                 |                  | 5 U               | 10 U             | 10 U             | 10 U            | 5 U             | 5 U               | 10 U            | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  | 5000 U            |                  |                  |                 |                 | 5000 U            |                 |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  | 270000           | 290000          |                  |                  |                  |                   |                 |                  |                   | 270000           | 320000           | 400000          |                 | 540000            | 720000          | 950000           |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  | 7.70 SU           |                  | 7.62 SU          |                 |                 | 7.70 SU           |                 | 7.29 SU          |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  | 400               |                  |                  |                 |                 | 400               |                 |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  | 770 umhos/cm      |                  |                  |                 |                 | 2300 umhos/cm     |                 |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  | 380000           | 410000          |                  |                  |                  |                   |                 |                  | 390000            | 610000           | 670000           |                 | 1500000         | 1900000           |                 | 4.30E+06         |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                 |                  |                  |                  |                   |                 |                  |                   |                  |                  |                 |                 |                   |                 |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-29<br>4/23/08 | MW-30<br>5/29/87 | MW-30<br>9/27/99 | MW-30<br>3/22/00 | MW-30<br>5/7/08 | MW-30 Dup<br>5/7/08 | MW-31D<br>9/27/99 | MW-31D<br>4/3/00 | MW-31D Dup<br>4/3/00 | MW-31D<br>5/16/08 | MW-31D<br>9/24/08 | MW-31S<br>9/27/99 | MW-31S<br>3/24/00 | MW-31S<br>4/28/08 | MW-31S<br>9/11/08 | MW-32D<br>10/6/89 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|-----------------|---------------------|-------------------|------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                  | 230000           | 230000          |                     |                   | 240000           |                      |                   |                   |                   | 220000            |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                  | 230000           | 230000          |                     | 220000            | 240000           |                      |                   |                   |                   | 220000            |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  | 2 U              |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      |                  |                  | 27000            | 27000            |                 |                     | 20000             | 20000            | 24000                |                   |                   | 70000             | 290000            |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  | 770000           | 900000           |                 |                     | 10000             | 8500             | 6900                 |                   |                   | 8100              | 22000             |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 25 U             | 10 U             | 10 U             | 10 U            | 10 U                | 10 U              | 10 U             |                      | 10 U              | 10 U              | 10 U              | 10 U              | 1.7 B J           | 4.8 B J           | 50 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 6.1 B J          | 5 U              | 10 U             | 10 U             | 10 U            | 10 U                | 10 U              | 10 U             |                      | 10 U              | 10 U              | 10 U              | 10 U              | 10 U              | 2.2 B             | 5 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  | 950000           | 5000             |                 |                     | 250000            | 240000           |                      |                   |                   | 260000            | 470000            |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  | 6.66 SU          |                 |                     |                   |                  |                      |                   |                   |                   | 6.98 SU           |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  | 1500000          | 1.50E+06         |                 |                     | 300000            | 310000           | 300000               |                   |                   | 380000            | 820000            |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                 |                     |                   |                  |                      |                   |                   |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R = Result rejected.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-32D<br>10/30/90 | MW-32D<br>2/6/91 | MW-32D<br>4/25/91 | MW-32D<br>1/30/92 | MW-32D<br>7/16/96 | MW-32D<br>10/22/97 | MW-32D<br>12/10/98 | MW-32D<br>9/28/99 | MW-32D Dup<br>9/28/99 | MW-32D<br>4/6/00 | MW-32D<br>6/26/01 | MW-32D<br>6/14/02 | MW-32D<br>5/8/08 | MW-32D<br>10/2/08 | MW-32S<br>10/5/89 | MW-32S<br>10/30/90 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-----------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 200000                | 200000           | 220000            |                   |                  |                   |                   |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 200000                | 200000           | 220000            |                   |                  |                   |                   |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Bromide                          |                            |                          |                           |                          |                      | 5000 U             | 10 U             | 10 U              | 5 U               |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   | 250 U              |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 20000                 | 20000            | 17000             |                   |                  |                   |                   |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 43000                 | 45000            | 45000             |                   |                  |                   |                   |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                  |                   | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              |                       | 10 U             | 0 U               | 0 U               | 10 U             | 10 U              | 5 U               |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                  |                   | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              | 10 U                  | 10 U             | 0 U               | 0 U               | 10 U             | 10 U              | 5 U               |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Ethane                           |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Ethene                           |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 240000                | 240000           | 250000            |                   |                  |                   |                   |                    |
| Methane                          |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| pH                               |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Silica                           |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   | 310000                | 300000           | 280000            |                   |                  |                   |                   |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                  |                   |                   |                   |                    |                    |                   |                       |                  |                   |                   |                  |                   |                   |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-32S<br>2/6/91 | MW-32S<br>4/25/91 | MW-32S<br>1/31/92 | MW-32S<br>7/16/96 | MW-32S<br>10/21/97 | MW-32S<br>12/10/98 | MW-32S<br>9/29/99 | MW-32S<br>4/6/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                   |                   |                    |                    |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   | 230000           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   | 230000           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      | 500 U            | 500 U             | 200 U             |                   |                    |                    |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                   |                   |                   |                    |                    | 50000             | 45000            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                   |                   |                    |                    |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                   |                   |                   |                    |                    |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    | 19000             | 21000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                   | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    | 250000            | 260000           |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    | 370000            | 340000           |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                    |                    |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                    |                    |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                   |                   |                    |                    |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                    |                    |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-325<br>6/25/01 | MW-325<br>6/14/02 | MW-325<br>5/13/08 | MW-325<br>9/22/08 | MW-33<br>7/19/89 | MW-33<br>6/23/93 | MW-33<br>7/13/94 | MW-33<br>10/26/95 | MW-33<br>9/28/99 | MW-33<br>3/28/00 | MW-33<br>5/12/08 | MW-34D<br>7/19/89 | MW-34D<br>10/30/90 | MW-34D<br>2/6/91 | MW-34D<br>4/25/91 | MW-34D<br>1/31/92 | MW-34D<br>9/28/99 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|--------------------|------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   | 150000           | 200000           |                  |                   |                    |                  |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 150000            | 150000           | 200000           |                  |                   |                    |                  |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   | 1 U              | 1 U              | 590              |                   |                  |                  |                  | 10 U              | 2 U                | 5 U              | 2 U               |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 58000             | 75000            | 60000            |                  |                   |                    |                  |                   |                   | 57000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                  |                  |                  | 40                |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                   |                  |                  |                  | 2900              |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 19000             | 19000            | 7500             |                  |                   |                    |                  |                   |                   | 30000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U               | 0 U               | 3.5 B J           | 2.6 B J           | 250 U            | 10 U             | 5 U              | 5 U               | 10 U             | 10 U             | 4.2 B J          | 250 U             |                    |                  |                   | 5 U               | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U               | 0 U               | 10 U              | 10 U              | 5 U              | 5 U              | 5 U              | 5 U               | 10 U             | 10 U             | 10 U             | 5 U               |                    |                  |                   | 5 U               | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 5000 U            |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 200000            | 220000           | 250000           |                  |                   |                    |                  |                   |                   | 230000            |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 8.12 SU           |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 300               |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 610 umhos/cm      |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  | 340000            | 380000           | 370000           |                  |                   |                    |                  |                   |                   | 340000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                  |                  |                   |                  |                  |                  |                   |                    |                  |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-34D Dup<br>9/28/99 | MW-34D<br>4/5/00 | MW-34D<br>6/13/02 | MW-34D<br>5/6/08 | MW-34D<br>9/17/08 | MW-34D<br>6/25/10 | MW-34S<br>7/19/89 | MW-34S<br>1/30/92 | MW-34S<br>6/30/93 | MW-34S<br>7/15/94 | MW-34S<br>7/17/96 | MW-34S<br>10/21/97 | MW-34S<br>12/11/98 | MW-34S<br>9/14/99 | MW-34S<br>3/24/00 | MW-34S<br>6/12/02 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   | 190000            | 220000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 180000                | 210000           |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   | 190000            | 220000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   | 2 U               | 10 U              | 10 U              |                    |                    |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 55000                 | 85000            |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   | 37000             | 82000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 29000                 | 28000            |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   | 32000             | 27000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                       | 10 U             | 0 U               | 10 U             | 10 U              |                   | 250 U             | 5 U               | 10 U              | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              | 10 U              | 0 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                       | 10 U             | 0 U               | 10 U             | 10 U              |                   | 5 U               | 5 U               | 5 U               | 5 U               | 5 U               | 0 U                | 0 U                | 10 U              | 10 U              | 0 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       | 280000           |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   | 230000            | 290000            |
| Methane                          |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   | 7.35 SU           |
| Silica                           |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 340000                | 430000           |                   |                  |                   | 699000            |                   |                   |                   |                   |                   |                    |                    |                   | 360000            | 410000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-34S<br>4/28/08 | MW-34S<br>9/10/08 | MW-34S Dup<br>9/10/08 | MW-34S<br>6/18/10 | MW-35D<br>7/19/89 | MW-35D<br>2/28/91 | MW-35D<br>7/17/96 | MW-35D<br>10/21/97 | MW-35D<br>12/11/98 | MW-35D<br>9/29/99 | MW-35D<br>4/4/00 | MW-35D<br>6/21/01 | MW-35D<br>6/12/02 | MW-35D<br>5/6/08 | MW-35D<br>9/17/08 | MW-35S<br>7/19/89 |       |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 190000            | 220000           |                   |                   |                  |                   |                   |       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 190000            | 220000           |                   |                   |                  |                   |                   |       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   | 2 U               |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 50000             | 56000            |                   |                   |                  |                   |                   |       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 34000             | 34000            |                   |                   |                  |                   |                   |       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2 B J             | 10 U              | 10 U                  |                   |                   | 250 U             |                   | 5 U                | 0 U                | 0 U               | 10 U             | 10 U              | 0 U               | 0 U              | 10 U              | 2.5 B J           | 250 U |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U              | 10 U                  |                   |                   | 5 U               |                   | 5 U                | 0 U                | 0 U               | 10 U             | 10 U              | 0 U               | 0 U              | 10 U              | 2.3 B             | 5 U   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 240000            | 270000           |                   |                   |                  |                   |                   |       |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    | 390000            | 430000           |                   |                   |                  |                   |                   |       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                       | 710000            |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                       |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                  |                   |                   |       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-355<br>5/13/08 | MW-355<br>6/21/10 | MW-36D<br>9/27/99 | MW-36D<br>4/4/00 | MW-36D<br>5/19/08 | MW-36S<br>2/28/91 | MW-36S<br>9/27/99 | MW-36S<br>3/23/00 | MW-36S<br>5/7/08 | MW-37D<br>1/26/90 | MW-37D<br>1/30/92 | MW-37D<br>6/24/93 | MW-37D<br>4/28/94 | MW-37D<br>7/12/94 | MW-37D<br>10/27/95 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   | 280000           |                   |                   | 170000            | 230000            |                  |                   |                   |                   |                   |                   |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   | 280000           |                   |                   | 170000            | 230000            |                  |                   |                   |                   | 210000            | 180000            | 160000             |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   | 2 U               |                   |                   |                  | 5 U               | 10 U              | 10 U              | 500 U             | 500 U             |                    |
| Chloride                         |                            | 250000                   |                           |                          |                      |                   |                   | 32000             | 21000            |                   |                   | 40000             | 57000             |                  |                   |                   |                   |                   |                   | 35000              |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   | 90                 |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   | 310                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   | 200000            | 130000           |                   |                   | 16000             | 120000            |                  |                   |                   |                   |                   |                   | 21000              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Cyanide, Free                    | 200                        | 200                      | 200                       | 1.5                      | 3.5 BJ               |                   |                   | 10 U              | 10 U             | 10 U              |                   | 10 U              | 10 U              | 10 U             | 50 U              | 5 U               | 5 U               | 5 U               | 5 U               | 5 U                |
| Cyanide, Total                   | 200                        | 200                      |                           | 1.5                      | 10 U                 |                   |                   | 10 U              | 10 U             | 2.4 BJ            |                   | 10 U              | 10 U              | 10 U             | 5 U               | 5 U               | 5 U               | 13 U              | 5 U               | 5 U                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   | 5000 U             |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   | 480000            | 360000           |                   |                   | 290000            | 340000            |                  |                   |                   |                   | 350000            | 240000            | 180000             |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   | 6.98 SU           |                  |                   |                   |                   | 7.69 SU           | 7.53 SU           | 7.95 SU            |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   | 300                |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   | 510 umhos/cm       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   | 1730000           | 690000           | 540000            |                   | 270000            | 470000            |                  |                   |                   |                   | 460000            | 320000            | 260000             |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   | 5000 U            | 5000 U            |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   | 5.9 N.T.U.        |                   |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1016                    | 2.6                        | 7.2                      | 0.5                       | 1.1                      |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1221                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1232                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1242                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1248                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1254                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Arochlor-1260                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| PCBs (Total)                     | 0.5                        | 0.5                      | 0.5                       | 0.19                     |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-37D Dup<br>10/27/95 | MW-37D<br>7/15/96 | MW-37D<br>12/14/98 | MW-37D<br>9/22/99 | MW-37D<br>4/3/00 | MW-37D Dup<br>4/6/00 | MW-37D<br>4/7/00 | MW-37D<br>6/26/01 | MW-37D<br>6/19/02 | MW-37D<br>4/15/04 | MW-37D<br>5/14/08 | MW-37D<br>10/1/08 | MW-37D<br>1/23/14 | MW-37D<br>2/18/14 | MW-37D<br>3/20/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------------|-------------------|--------------------|-------------------|------------------|----------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                        |                   |                    | 150000            | 230000           | 230000               | 140000           |                   |                   |                   |                   |                   | 230000 B          | 220000 B          | 210000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 120000                 |                   |                    | 150000            |                  |                      | 140000           |                   |                   |                   |                   |                   | 230000 B          | 220000 B          | 210000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      | 500 U                  |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      | 29000                  |                   |                    | 25000             | 35000            |                      | 39000            |                   |                   |                   |                   |                   | 150000 B          | 180000            | 180000            |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  | 80                     |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 4700                 |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   | 4900              | 5900              | 6100              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 22000                  |                   |                    | 19000             | 32000            |                      | 18000            |                   |                   |                   |                   |                   | 39000             | 41000             | 40000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Cyanide, Free                    | 200                        | 200                      | 200                       | 1.5                      | 5 U                  | 5 U                    | 0 U               | 10 U               |                   |                  |                      | 10 U             | 0 U               | 0 U               |                   | 10 U              | 10 U              |                   |                   |                   |
| Cyanide, Total                   | 200                        | 200                      |                           | 1.5                      | 5 U                  | 5 U                    | 0 U               | 10 U               | 10 U              |                  |                      | 0 U              | 0 U               | 0 U               | 10 U              | 10 U              | 10 U              |                   |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U                 |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 150000                 |                   |                    | 160000            | 260000           |                      | 160000           |                   |                   |                   |                   |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      | 8.15 SU                |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      | 300                    |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      | 460 umhos/cm           |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 230000                 |                   |                    | 230000            | 320000           |                      | 230000           |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1016                    | 2.6                        | 7.2                      | 0.5                       | 1.1                      |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1221                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1232                    | 0.33                       | 1.3                      | 0.5                       | 0.0046                   |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1242                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1248                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1254                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| Arochlor-1260                    | 0.33                       | 1.3                      | 0.5                       | 0.039                    |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| PCBs (Total)                     | 0.5                        | 0.5                      | 0.5                       | 0.19                     |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                        |                   |                    |                   |                  |                      |                  |                   |                   |                   |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-37D<br>5/8/14 | MW-37D<br>6/2/14 | MW-37D<br>7/2/14 | MW-37D<br>8/6/14 | MW-37D<br>9/9/14 | MW-37D<br>10/6/14 | MW-37D<br>10/28/14 | MW-37D<br>1/14/15 | MW-37D<br>2/23/15 | MW-37D<br>3/25/15 | MW-37D<br>4/20/15 | MW-37D<br>5/19/15 | MW-37S<br>1/26/90 | MW-37S<br>1/31/92 | MW-37S<br>4/28/94 | MW-37S<br>7/12/94 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 210000 B         | 190000           | 200000           | 200000 B         | 220000 B         | 210000 B          | 200000 B           | 230000 B          | 210000 B          | 210000 B          | 250000 B          | 240000 B          |                   |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 210000 B         | 190000 B         | 200000           | 200000 B         | 220000 B         | 210000 B          | 200000 B           | 230000 B          | 210000 B          | 210000 B          | 250000 B          | 240000 B          |                   |                   | 180000            | 180000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   | 20 U              | 10 U              | 20 U              |
| Chloride                         |                            |                          | 250000                    |                          |                      | 190000 B         | 140000           | 130000 B         | 99000            | 150000 B         | 160000 B          | 170000             | 170000            | 140000 B          | 220000 B          | 150000            | 140000            |                   |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3600 B           | 2200             | 1300             | 1800             | 4200             | 4100              | 4600               | 5000 B            | 3500              | 2400 B            | 3200              | 2900 B            |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 36000            | 28000            | 35000            | 46000            | 31000 B          | 31000 B           | 34000              | 34000             | 35000             | 41000             | 39000             | 42000             |                   |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 10                | 5 U               | 5 U               | 5 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 25                | 5 U               | 5 U               | 5 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   | 360000            | 280000            |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   | 7.02 SU           | 7.71 SU           |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   | 7.53 C            |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   | 590000            | 390000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   | 5000              | 76000             |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   | 18 N.T.U.         |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-375<br>10/27/95 | MW-375<br>7/15/96 | MW-375<br>12/14/98 | MW-375<br>9/22/99 | MW-375<br>4/3/00 | MW-375<br>6/25/01 | MW-375<br>6/12/02 | MW-375<br>4/15/04 | MW-375<br>5/14/08 | MW-375 Dup<br>5/14/08 | MW-375<br>9/18/08 | MW-375<br>6/28/10 | MW-375<br>1/23/14 | MW-375<br>2/19/14 | MW-375 Dup<br>2/19/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                   |                    |                   | 210000           |                   |                   |                   |                   |                       |                   |                   | 240000 B          | 260000 B          | 240000 B              |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   | 5000 U            | 5000 U            | 5000 U                |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 190000             |                   |                    |                   | 210000           |                   |                   |                   |                   |                       |                   |                   | 240000 B          | 260000 B          | 240000 B              |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Bromide                          |                            |                          |                           |                          |                      | 500 U              |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      | 30000              |                   |                    | 30000             | 190000           |                   |                   |                   |                   |                       |                   |                   | 160000 B          | 190000            | 190000                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  | 90                 |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 900                |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   | 5000              | 6100              | 6100                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Sulfate                          |                            |                          |                           |                          |                      | 20000              |                   |                    | 32000             | 25000            |                   |                   |                   |                   |                       |                   |                   | 38000             | 40000             | 39000                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                | 5 U               | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               |                   | 10 U              | 10 U                  | 10 U              | 10 U              |                   |                   |                       |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                | 5 U               | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              | 10 U                  | 10 U              |                   |                   |                   |                       |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U             |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 200000             |                   |                    | 250000            | 260000           |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| pH                               |                            |                          |                           |                          |                      | 7.73 SU            |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Silica                           |                            |                          |                           |                          |                      | 300                |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Specific Conductance             |                            |                          |                           |                          |                      | 550 umhos/cm       |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 290000             |                   |                    | 340000            | 670000           |                   |                   |                   |                   |                       |                   | 275000            |                   |                   |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                    |                   |                  |                   |                   |                   | 0.5 U             |                       |                   |                   |                   |                   |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                    |                   |                  |                   |                   |                   | 0.3 J             |                       |                   |                   |                   |                   |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                    |                   |                  |                   |                   |                   | 0.3 J             |                       |                   |                   |                   |                   |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                    |                   |                  |                   |                   |                   |                   |                       |                   |                   |                   |                   |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-375<br>3/21/14 | MW-375<br>5/8/14 | MW-375<br>6/2/14 | MW-375 Dup<br>6/2/14 | MW-375<br>7/2/14 | MW-375<br>8/5/14 | MW-375<br>9/9/14 | MW-375<br>10/6/14 | MW-375<br>10/29/14 | MW-375<br>1/13/15 | MW-375 Dup<br>1/13/15 | MW-375<br>2/24/15 | MW-375<br>3/25/15 | MW-375<br>4/21/15 | MW-375<br>5/19/15 | MW-38D<br>1/26/90 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|----------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B          | 230000 B         | 230000           | 240000               | 240000           | 230000 B         | 280000 B         | 260000 B          | 280000 B           | 240000 B          | 270000 B              | 260000 B          | 250000 B          | 280000 B          | 270000 B          |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U           | 4800 J           | 5000 U               | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U                | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B          | 230000 B         | 230000 B         | 240000 B             | 240000           | 230000 B         | 280000 B         | 260000 B          | 280000 B           | 240000 B          | 270000 B              | 260000 B          | 250000 B          | 280000 B          | 270000 B          |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 200000            | 63000            | 97000            | 86000                | 98000 B          | 110000           | 130000 B         | 140000 B          | 160000 B           | 170000            | 170000                | 180000 B          | 130000 B          | 150000            | 130000            |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 6500              | 1200             | 1900             | 1800                 | 1800             | 1700             | 3800             | 3900              | 4500 B             | 3500 B            | 3500 B                | 2700              | 2400 B            | 2300              | 2400 B            |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 41000             | 24000            | 31000            | 30000                | 33000            | 35000            | 32000 B          | 31000 B           | 34000 B            | 25000             | 26000                 | 33000             | 30000             | 32000             | 36000             |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   | 50 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   | 5 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                      |                  |                  |                  |                   |                    |                   |                       |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-38D<br>1/31/92 | MW-38D<br>4/28/94 | MW-38D<br>7/11/94 | MW-38D<br>7/15/96 | MW-38D<br>12/14/98 | MW-38D<br>9/1/99 | MW-38D<br>3/29/00 | MW-38D<br>6/19/01 | MW-38D<br>6/12/02 | MW-38D<br>4/14/04 | MW-38D<br>4/28/08 | MW-38D<br>9/16/08 | MW-38S<br>2/7/90 | MW-38S<br>1/31/92 | MW-38S<br>7/15/96 | MW-38S<br>12/14/98 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|--------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    | 150000           | 170000            |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   | 200000            | 170000            |                   |                    | 150000           | 170000            |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Bromide                          |                            |                          |                           |                          |                      | 2 U               | 5 U               | 5 U               |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   | 2 U               |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                   |                   |                    | 25000            | 45000             |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    | 18000            | 19000             |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U               | 5 U               | 5 U               | 5 U               | 0 U                | 10 U             | 10 U              | 0 U               | 0 U               |                   | 3.3 B J           | 2.5 B J           |                  | 5 U               | 5 U               | 0 U                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U               | 13 U              | 5 U               | 5 U               | 0 U                | 10 U             | 10 U              | 0 U               | 0 U               | 10 U              | 10 U              | 10 U              | 5 U              | 5 U               | 5 U               | 0 U                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   | 320000            | 220000            |                   |                    | 180000           | 200000            |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| pH                               |                            |                          |                           |                          |                      |                   | 7.6 SU            | 7.76 SU           |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   | 420000            | 300000            |                   |                    | 280000           | 280000            |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   | 92000             | 72000             |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                   | 82 N.T.U.         | 100 N.T.U.        |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                    |                  |                   |                   |                   | 0.5 U             |                   |                   |                  |                   |                   |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-38S<br>9/22/99 | MW-38S<br>3/23/00 | MW-38S<br>6/19/01 | MW-38S<br>6/11/02 | MW-39D<br>2/22/90 | MW-39D<br>1/31/92 | MW-39D<br>4/29/94 | MW-39D<br>7/12/94 | MW-39D<br>7/15/96 | MW-39D<br>12/11/98 | MW-39D<br>9/1/99 | MW-39D<br>3/30/00 | MW-39D<br>6/25/01 | MW-39D<br>6/12/02 | MW-39D<br>5/9/08 | MW-39D<br>9/18/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 180000            | 190000            |                   |                   |                   |                   |                   |                   |                   |                    | 25000            | 270000            |                   |                   |                  |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 180000            | 190000            |                   |                   |                   |                   | 270000            | 280000            |                   |                    | 250000           | 270000            |                   |                   |                  |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 2 U               | 25 U              | 20 U              |                   |                    |                  |                   |                   |                   |                  |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 30000             | 66000             |                   |                   |                   |                   |                   |                   |                   |                    | 25000            | 20000             |                   |                   |                  |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 22000             | 32000             |                   |                   |                   |                   |                   |                   |                   |                    | 44000            | 53000             |                   |                   |                  |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 10 U              | 0 U               | 0 U               | 5 U               | 5 U               | 5 U               | 5 U               | 5 U               | 0 U                | 10 U             | 10 U              | 0 U               | 0 U               | 10 U             | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U              | 0 U               | 0 U               | 5 U               | 5 U               | 5 U               | 5 U               | 5 U               | 0 U                | 10 U             | 10 U              | 0 U               | 0 U               | 10 U             | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 200000            | 260000            |                   |                   |                   |                   | 340000            | 320000            |                   | 290000             | 280000           |                   |                   |                   |                  |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| pH                               |                            |                          |                           |                          |                      |                   | 7.24 SU           |                   |                   |                   |                   | 7.21 SU           | 7.37 SU           |                   |                    |                  |                   |                   |                   |                  |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 290000            | 340000            |                   |                   |                   |                   | 400000            | 430000            |                   | 420000             | 360000           |                   |                   |                   |                  |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 5000 U            | 6000              |                   |                    |                  |                   |                   |                   |                  |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 30 N.T.U.         |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                    |                  |                   |                   |                   |                  |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-39D Dup<br>9/18/08 | MW-39D<br>1/21/14 | MW-39D<br>2/26/14 | MW-39D<br>3/20/14 | MW-39D<br>5/7/14 | MW-39D<br>6/3/14 | MW-39D<br>7/1/14 | MW-39D<br>8/6/14 | MW-39D<br>9/9/14 | MW-39D Dup<br>9/9/14 | MW-39D<br>10/7/14 | MW-39D<br>10/30/14 | MW-39D<br>1/16/15 | MW-39D<br>2/24/15 | MW-39D<br>3/26/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|----------------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                       | 270000 B          | 290000 B          | 270000 B          | 270000 B         | 260000           | 260000 B         | 270000 B         | 300000 B         | 300000 B             | 270000 B          | 290000 B           | 310000 B          | 290000 B          | 250000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                       | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U               | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                       | 270000 B          | 290000 B          | 270000 B          | 270000 B         | 260000 B         | 260000 B         | 270000 B         | 300000 B         | 300000 B             | 270000 B          | 290000 B           | 310000 B          | 290000 B          | 250000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                       | 70000             | 81000             | 89000             | 110000           | 120000 B         | 130000 B         | 110000           | 110000 B         | 110000 B             | 110000 B          | 130000 B           | 120000            | 120000 B          | 99000 B           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                       | 3400              | 3600              | 3800              | 4200 B           | 4500             | 4600             | 4200             | 4200             | 4200                 | 4000              | 4300 B             | 4200 B            | 3900              | 3500 B            |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                       | 35000             | 35000             | 36000             | 34000            | 40000 B          | 40000            | 33000            | 36000 B          | 36000 B              | 39000 B           | 41000 B            | 36000             | 37000             | 35000 B           |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U                  |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U                  |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                   |                   |                   |                  |                  |                  |                  |                  |                      |                   |                    |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-39D<br>4/23/15 | MW-39D<br>5/21/15 | MW-39S<br>2/5/90 | MW-39S<br>1/31/92 | MW-39S<br>4/28/94 | MW-39S<br>7/12/94 | MW-39S<br>7/15/96 | MW-39S<br>5/6/08 | MW-39S<br>9/15/08 | MW-40D<br>2/5/90 | MW-40D<br>10/24/95 | MW-40D<br>12/10/98 | MW-40D<br>9/15/99 | MW-40D<br>3/20/00 | MW-40D<br>3/30/00 | MW-40D<br>6/20/01 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 240000 B          | 250000 B          |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   | 200000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U            |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000 B          | 250000 B          |                  |                   | 270000            | 630000            |                   |                  |                   | 170000           |                    |                    |                   |                   |                   | 200000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                  | 2 U               | 5 U               | 10 U              |                   |                  |                   | 2 U              | 500 U              |                    |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 91000 B           | 91000             |                  |                   |                   |                   |                   |                  |                   |                  | 24000              |                    | 25000             |                   |                   | 30000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  | 30                 |                    |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2800              | 3100 B            |                  |                   |                   |                   |                   |                  |                   |                  | 3800               |                    |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 28000             | 34000             |                  |                   |                   |                   |                   |                  |                   |                  | 12000              |                    | 23000             |                   |                   | 10000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   | 50 U             | 5 U               | 5 U               | 5 U               | 5 U               | 1.6 B            | 1.8 B J           | 50 U             | 5 U                | 0 U                | 10 U              | 0 U               | 10 U              | 0 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   | 5 U              | 5 U               | 5 U               | 5 U               | 5 U               | 10 U             | 5.5 B J           | 5 U              | 5 U                | 0 U                | 10 U              | 0 U               | 10 U              | 0 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  | 5000 U             |                    |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                   | 420000            | 1500000           |                   |                  |                   |                  | 190000             |                    | 220000            |                   |                   | 210000            |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                  |                   | 6.89 SU           | 7.09 SU           |                   |                  |                   |                  | 7.82 SU            |                    |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  | 400                |                    |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  | 530 umhos/cm       |                    |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                   | 640000            | 460000            |                   |                  |                   |                  | 300000             |                    | 290000            |                   |                   | 280000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                   | 28000             | 8900000           |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                   | 39 N.T.U.         |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                   |                   |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-40D<br>6/11/02 | MW-40D<br>4/25/08 | MW-40D<br>9/8/08 | MW-40D<br>6/16/10 | MW-40S<br>2/5/90 | MW-40S<br>10/30/95 | MW-40S<br>12/10/98 | MW-40S<br>9/21/99 | MW-40S<br>3/30/00 | MW-40S<br>6/19/01 | MW-40S<br>6/11/02 | MW-40S<br>4/25/08 | MW-40S<br>9/4/08 | MW-40S<br>6/15/10 | MW-41D<br>2/5/90 | MW-41D<br>1/29/92 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|-------------------|------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   | 260000            | 240000            |                   |                   |                  |                   |                  |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 260000             |                    | 260000            | 240000            |                   |                   |                   |                  |                   |                  |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                  |                   | 2 U              | 500 U              |                    |                   |                   |                   |                   |                   |                  |                   | 2 U              | 2 U               |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                  |                   |                  | 26000              |                    | 20000             | 16000             |                   |                   |                   |                  |                   |                  |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                  |                   |                  | 3900               |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 13000              |                    | 13000             | 10000             |                   |                   |                   |                  |                   |                  |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U               | 10 U              | 10 U             |                   | 50 U             | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 0 U               | 10 U              | 10 U             |                   | 50 U             | 5 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U               | 10 U              | 10 U             |                   | 5 U              | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 0 U               | 6 B               | 10 U             |                   | 5 U              | 7.6               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 5000 U             |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 260000             |                    | 270000            | 240000            |                   |                   |                   |                  |                   |                  |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 7.35 SU            |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 400                |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  | 600 umhos/cm       |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                  | 1380000           |                  | 440000             |                    | 320000            | 280000            |                   |                   |                   |                  | 696000            |                  |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                   |                  |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-41D<br>6/23/93 | MW-41D<br>7/13/94 | MW-41D<br>10/27/95 | MW-41D<br>12/9/98 | MW-41D<br>9/20/99 | MW-41D<br>3/29/00 | MW-41D<br>6/20/01 | MW-41S<br>2/5/90 | MW-41S<br>1/29/92 | MW-41S<br>6/24/93 | MW-41S<br>7/13/94 | MW-41S<br>10/27/95 | MW-41S<br>12/9/98 | MW-41S<br>9/20/99 | MW-41S<br>3/29/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   | 76000            | 67000             |                   |                   |                    |                   | 15000             | 15000             |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   | 32000              |                   |                   |                   |                   | 76000            | 67000             |                   |                   | 19000              |                   | 15000             | 15000             |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      | 1 U               | 1 U               | 500 U              |                   |                   |                   |                   | 2 U              | 2 U               | 1 U               | 1 U               | 500 U              |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   | 5000 U             |                   | 7500              | 5000 U            |                   |                  |                   |                   |                   | 5000 U             |                   | 5000 U            | 5000 U            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   | 40                 |                   |                   |                   |                   |                  |                   |                   |                   | 20                 |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   | 1700               |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   | 15000              |                   | 21000             | 11000             |                   |                  |                   |                   |                   | 19000              |                   | 15000             | 14000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 5 U               | 5 U                | 0 U               | 10 U              | 10 U              | 0 U               | 50 U             | 5 U               | 10 U              | 5 U               | 5 U                | 0 U               | 10 U              | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U               | 5 U               | 5 U                | 0 U               | 10 U              | 10 U              | 0 U               | 5 U              | 5 U               | 5 U               | 5 U               | 5 U                | 0 U               | 10 U              | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   | 5000 U             |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   | 5000 U             |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   | 46000              |                   | 100000            | 48000             |                   |                  |                   |                   |                   | 55000              |                   | 47000             | 34000             |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   | 6.66 SU            |                   |                   |                   |                   |                  |                   |                   |                   | 6.53 SU            |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   | 400                |                   |                   |                   |                   |                  |                   |                   |                   | 400                |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   | 130 umhos/cm       |                   |                   |                   |                   |                  |                   |                   |                   | 110 umhos/cm       |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   | 77000              |                   | 150000            | 100000            |                   |                  |                   |                   |                   | 74000              |                   | 70000             | 60000             |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                  |                   |                   |                   |                    |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-41S<br>6/20/01 | MW-42D<br>2/6/90 | MW-42D<br>10/27/95 | MW-42D<br>12/10/98 | MW-42D<br>9/21/99 | MW-42D<br>3/20/00 | MW-42D<br>3/30/00 | MW-42D<br>6/19/01 | MW-42M<br>2/6/90 | MW-42M<br>10/27/95 | MW-42M<br>12/10/98 | MW-42M<br>9/26/99 | MW-42M<br>3/29/00 | MW-42M<br>6/19/01 | MW-42S<br>2/6/90 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|--------------------|--------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                  |                    |                    | 140000            |                   | 140000            |                   |                  |                    |                    | 120000            | 100000            |                   |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                  | 140000             |                    | 140000            |                   | 140000            |                   |                  | 64000              |                    | 120000            | 100000            |                   |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   | 2 U              | 500 U              |                    |                   |                   |                   |                   | 2 U              | 500 U              |                    |                   |                   |                   | 2 U              |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                  | 5400               |                    | 7500              |                   | 22000             |                   |                  | 5000 U             |                    | 7500              | 5000 U            |                   |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  | 270                |                    |                   |                   |                   |                   |                  | 110                |                    |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                  | 960                |                    |                   |                   |                   |                   |                  | 1200               |                    |                   |                   |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                  | 110000             |                    | 120000            |                   | 160000            |                   |                  | 14000              |                    | 68000             | 16000             |                   |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U               | 50 U             | 5 U                | 0 U                | 10 U              | 0 U               | 10 U              | 0 U               | 50 U             | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 50 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U               | 5 U              | 5 U                | 0 U                | 10 U              | 0 U               | 10 U              | 0 U               | 5 U              | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 5 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  | 5000 U             |                    |                   |                   |                   |                   |                  | 5000 U             |                    |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  | 65000              |                    | 100000            |                   | 120000            |                   |                  | 31000              |                    | 87000             | 90000             |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                  | 8.06 SU            |                    |                   |                   |                   |                   |                  | 7.96 SU            |                    |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                  | 500                |                    |                   |                   |                   |                   |                  | 400                |                    |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  | 570 umhos/cm       |                    |                   |                   |                   |                   |                  | 200 umhos/cm       |                    |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  | 900000             |                    | 630000            |                   | 2.20E+06          |                   |                  | 120000             |                    | 200000            | 140000            |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                    |                    |                   |                   |                   |                   |                  |                    |                    |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-425<br>9/28/99 | MW-425<br>3/27/00 | MW-43D<br>2/22/90 | MW-43D<br>1/29/92 | MW-43D<br>6/23/93 | MW-43D<br>7/14/94 | MW-43D<br>10/25/95 | MW-43D<br>12/10/98 | MW-43D<br>9/17/99 | MW-43D<br>4/6/00 | MW-43D<br>6/22/01 | MW-43D<br>6/13/02 | MW-43D<br>5/13/08 | MW-43D<br>9/25/08 | MW-43D<br>6/29/10 | MW-43S<br>2/22/90 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 71000             | 13000             |                   |                   |                   |                   |                    |                    |                   | 98000            |                   |                   |                   |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 71000             | 13000             |                   |                   |                   |                   | 84000              |                    | 90000             | 98000            |                   |                   |                   |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   | 2 U               | 2 U               | 1 U               | 10 U              | 500 U              |                    |                   |                  |                   |                   |                   |                   |                   | 2 U               |
| Chloride                         |                            |                          | 250000                    |                          |                      | 10000 U           | 5000 U            |                   |                   |                   |                   | 22000              |                    | 20000             | 18000            |                   |                   |                   |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                   |                   | 70                 |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                   |                   |                   | 2100               |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 28000             | 49000             |                   |                   |                   |                   | 21000              |                    | 24000             | 25000            |                   |                   |                   |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 10 U              | 5 U               | 5 U               | 5 U               | 5 U               | 5 U                | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               | 2.7 B J           | 10 U              |                   | 5 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U              | 5 U               | 5 U               | 5 U               | 5 U               | 5 U                | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              |                   | 6                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 5000 U             |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 110000            | 40000             |                   |                   |                   |                   | 130000             |                    | 140000            | 130000           |                   |                   |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 7.80 SU            |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 400                |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   | 350 umhos/cm       |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 150000            | 90000             |                   |                   |                   |                   | 180000             |                    | 210000            | 180000           |                   |                   |                   |                   | 179000            |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                    |                    |                   |                  |                   |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-43S<br>1/29/92 | MW-43S<br>6/23/93 | MW-43S<br>7/13/94 | MW-43S<br>10/25/95 | MW-43S<br>12/10/98 | MW-43S<br>9/17/99 | MW-43S<br>3/22/00 | MW-43S<br>6/19/01 | MW-43S<br>6/11/02 | MW-43S<br>4/24/08 | MW-43S<br>9/4/08 | MW-43S<br>6/16/10 | MW-44<br>4/19/90 | MW-44<br>10/26/95 | MW-44<br>9/22/99 | MW-44<br>3/23/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    | 110000            | 47000             |                   |                   |                   |                  |                   |                  |                   | 17000            | 15000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   | 88000              |                    | 110000            | 47000             |                   |                   |                   |                  |                   |                  | 12000             | 17000            | 15000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      | 2 U               | 1 U               | 1 U               | 500 U              |                    |                   |                   |                   |                   |                   |                  |                   | 2 U              | 500 U             |                  |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      |                   |                   |                   | 21000              |                    | 20000             | 43000             |                   |                   |                   |                  |                   |                  | 8800              | 10000            | 7900             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   | 60                 |                    |                   |                   |                   |                   |                   |                  |                   |                  | 30                |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   | 3600               |                    |                   |                   |                   |                   |                   |                  |                   |                  | 2300              |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   | 6200               |                    | 19000             | 4800              |                   |                   |                   |                  |                   |                  | 6800              | 8100             | 13000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U               | 5 U               | 5 U               | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 0 U               | 10 U              | 10 U             |                   | 5 U              | 5 U               | 10 U             | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U               | 5 U               | 5 U               | 5 U                | 0 U                | 10 U              | 10 U              | 0 U               | 0 U               | 2.1 BJ            | 10 U             |                   | 5 U              | 5 U               | 10 U             | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   | 5000 U             |                    |                   |                   |                   |                   |                   |                  |                   |                  | 5000 U            |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   | 98000              |                    | 80000             | 77000             |                   |                   |                   |                  |                   |                  | 30000             | 34000            | 36000            |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   | 7.18 SU            |                    |                   | 6.61 SU           |                   |                   |                   |                  |                   |                  | 6.15 SU           |                  | 5.99 SU          |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   | 300                |                    |                   |                   |                   |                   |                   |                  |                   |                  | 400               |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   | 320 umhos/cm       |                    |                   |                   |                   |                   |                   |                  |                   |                  | 110 umhos/cm      |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   | 170000             |                    | 220000            | 160000            |                   |                   |                   |                  | 279000            |                  | 74000             | 78000            | 62000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                    |                    |                   |                   |                   |                   |                   |                  |                   |                  |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-45<br>5/17/90 | MW-45<br>9/30/99 | MW-45<br>3/23/00 | MW-45<br>5/20/08 | MW-46<br>5/17/90 | MW-46<br>2/28/91 | MW-46<br>9/29/99 | MW-46<br>4/4/00 | MW-46<br>5/19/08 | MW-46<br>10/3/08 | MW-47<br>5/17/90 | MW-47<br>3/14/95 | MW-47<br>3/24/95 | MW-47<br>9/29/99 | MW-47 Dup<br>9/29/99 | MW-47<br>3/31/00 | MW-47<br>5/20/08 | MW-47<br>10/9/08 | MW-47<br>6/24/10 |        |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------|------------------|------------------|------------------|--------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  | 140000           | 110000           |                  |                  |                  |                  | 210000          |                  |                  |                  |                  |                  | 180000           |                      | 120000           |                  |                  |                  |        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  | 140000           | 110000           |                  |                  |                  | 210000           | 210000          |                  |                  |                  |                  |                  | 180000           | 180000               | 120000           |                  |                  |                  |        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  | 10 U             |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Chloride                         |                            | 250000                   |                           |                          |                      | 22000            | 38000            |                  |                  |                  |                  | 25000            | 31000           |                  |                  |                  |                  |                  | 35000            | 37000                | 30000            |                  |                  |                  |        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Sulfate                          |                            |                          |                           |                          |                      | 30000            | 34000            |                  |                  |                  |                  | 30000            | 31000           |                  |                  |                  |                  |                  | 16000            | 17000                | 8600             |                  |                  |                  |        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U              | 10 U             | 10 U             | 10 U             | 10 U             | 5 U              |                  | 10 U            | 10 U             | 10 U             | 10 U             | 14               |                  | 0 U              | 10 U                 | 10 U             | 10 U             | 10 U             | 10 U             | 2.7 B  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U              | 10 U             | 10 U             | 2.2 B J          | 5 U              |                  | 10 U             | 10 U            | 2 B J            | 10 U             | 31               |                  | 5 U              | 0 U              | 10 U                 | 10 U             | 10 U             | 10 U             | 3.3 B J          | 2.7 B  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 200000           | 180000           |                  |                  |                  |                  | 260000           | 240000          |                  |                  |                  |                  |                  | 280000           | 280000               | 190000           |                  |                  |                  |        |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| pH                               |                            |                          |                           |                          |                      |                  |                  | 6.38 SU          |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 310000           | 240000           |                  |                  |                  |                  | 360000           | 340000          |                  |                  |                  |                  |                  | 480000           | 510000               | 260000           |                  |                  |                  | 521000 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-48<br>5/17/90 | MW-48<br>10/31/91 | MW-49D<br>10/22/91 | MW-49D<br>10/30/91 | MW-49D<br>5/21/08 | MW-49D<br>10/6/08 | MW-49D<br>10/23/14 | MW-49D<br>10/23/14 | MW-49S<br>10/22/91 | MW-49S<br>10/31/91 | MW-49S<br>5/22/08 | MW-49S<br>10/9/08 | MW-49S<br>9/12/13 | MW-49S<br>10/29/14 |          |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|----------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   | 33                | 16                 |          |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    | 280000 B |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    | 5000 U   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    | 280000 B |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Bromide                          |                            |                          |                           |                          |                      |                  | 5000 U            | 2000 U             | 5000 U             |                   |                   |                    |                    |                    | 2000 U             | 2000 U            |                   |                   |                    |          |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    | 95000              |                    |                   |                   |                   |                    |          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                   |                    |                    |                   |                   |                    | 100 U              |                    |                    |                   |                   |                   |                    |          |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    | 160000             |                    |                   |                   |                   |                    |          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    | 3000 U             |                    |                   |                   |                   |                    |          |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 37               | 41                |                    | 150                | 10 U              | 2.3 B             |                    |                    |                    | 170                | 10 UJ             | 2.3 B             |                   |                    |          |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 96               | 8                 |                    | 44                 | 5.5 B J           | 10 U              |                    |                    |                    | 55                 | 10 U              | 10 U              |                   |                    |          |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    | 11000              |                    |                    |                   |                   |                   |                    |          |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    | 0.33 J             |                    |                    |                   |                   |                   |                    |          |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    | 2.1                |                    |                    |                   |                   |                   |                    |          |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    | 1.3                |                    |                    |                   |                   |                   |                    |          |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    | 1000               |                    |                    |                   |                   |                   |                    |          |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                    |                    |                   |                   |                    |                    |                    |                    |                   |                   |                   |                    |          |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-49S<br>9/23/15 | MW-50D<br>11/1/91 | MW-50D<br>9/28/99 | MW-50D<br>4/4/00 | MW-50D Dup<br>4/4/00 | MW-50D<br>5/22/08 | MW-50D<br>10/7/08 | MW-50D<br>7/2/10 | MW-50D<br>1/29/14 | MW-50D<br>3/21/14 | MW-50D<br>5/6/14 | MW-50D<br>6/4/14 | MW-50D<br>7/9/14 | MW-50D<br>8/7/14 | MW-50D<br>9/10/14 | MW-50D<br>10/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|------------------|----------------------|-------------------|-------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 | 4.9               |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   | 260000           | 260000               |                   |                   |                  | 270000 B          | 270000 B          | 270000 B         | 260000 B         | 260000 B         | 270000           | 300000 B          | 290000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   | 260000           |                      |                   |                   |                  | 270000 B          | 270000 B          | 270000 B         | 260000 B         | 260000 B         | 270000           | 300000 B          | 290000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      | 50 U              |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      |                   | 35000             | 31000             | 34000            |                      |                   |                   |                  | 89000             | 82000             | 74000            | 98000 B          | 93000 B          | 92000            | 94000 B           | 94000 B           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                  |                      |                   |                   |                  | 100 U             | 6.6 J             | 100 U            | 100 U            | 140              | 100 U            | 100 U             | 100 U             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                   | 290000            | 260000            | 260000           |                      |                   |                   |                  | 140000            | 180000            | 180000           | 230000 B         | 250000 B         | 220000           | 270000 B          | 230000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U               | 10 U              | 10 U              | 10 U             | 10 UJ                | 1.9 B             |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U               | 10 U              | 10 U              | 10 U             | 10 U                 | 2.5 B             |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   | 330000            | 410000            | 490000           |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   | 710000            | 700000            | 690000           |                      |                   |                   | 980000           |                   |                   |                  |                  |                  |                  |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                      |                   |                   |                  |                   |                   |                  |                  |                  |                  |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-50D<br>10/29/14 | MW-50D<br>1/15/15 | MW-50D<br>2/26/15 | MW-50D<br>3/26/15 | MW-50D<br>4/22/15 | MW-50D<br>5/20/15 | MW-50S<br>11/1/91 | MW-50S<br>9/28/99 | MW-50S<br>4/6/00 | MW-50S<br>5/15/08 | MW-50S<br>9/30/08 | MW-50S<br>6/29/10 | MW-50S<br>1/24/14 | MW-50S<br>3/21/14 | MW-50S<br>5/6/14 | MW-50S<br>6/5/14 | MW-50S<br>7/9/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 250000 B           | 290000 B          | 310000 B          | 300000 B          | 310000 B          | 340000 B          |                   |                   | 260000           |                   |                   |                   | 360000 B          | 380000 B          | 160000 B         | 140000 B         | 180000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                   |                  |                   |                   |                   | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 250000 B           | 290000 B          | 310000 B          | 300000 B          | 310000 B          | 340000 B          |                   | 230000            | 260000           |                   |                   |                   | 360000 B          | 380000 B          | 160000 B         | 140000 B         | 180000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 20 U              |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      | 99000 B            | 97000             | 100000 B          | 88000             | 98000             | 99000 B           |                   | 37000             | 38000            |                   |                   |                   | 450000 B          | 690000            | 220000 B         | 230000 B         | 200000 B         |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 100 U                | 100 U              | 100 U             | 100 U             | 17 J              | 22 J B            |                   |                   |                   |                  |                   |                   |                   | 16000             | 28000             | 2400 B           | 4400             | 2200             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 260000 B           | 260000            | 270000            | 230000            | 270000            | 250000            |                   | 160000            | 140000           |                   |                   |                   | 79000             | 120000            | 57000            | 58000 B          | 60000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                   |                   |                   |                   |                   | 5 U               | 10 U              | 10 U             | 10 U              | 10 U              |                   |                   |                   |                  |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                   |                   |                   |                   |                   | 5 U               | 10 U              | 63 U             | 10 U              | 10 U              |                   |                   |                   |                  |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   | 330000            | 350000           |                   |                   |                   |                   |                   |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   | 510000            | 480000           |                   |                   |                   | 1930000           |                   |                  |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-505<br>8/8/14 | MW-505<br>9/10/14 | MW-505<br>10/9/14 | MW-505<br>10/30/14 | MW-505<br>1/16/15 | MW-505<br>2/27/15 | MW-505<br>3/27/15 | MW-505<br>4/23/15 | MW-505<br>5/21/15 | MW-51D<br>11/1/91 | MW-51D<br>7/17/96 | MW-51D<br>12/11/98 | MW-51D<br>9/21/99 | MW-51D<br>4/6/00 | MW-51D<br>6/25/01 | MW-51D<br>6/18/02 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 190000 B         | 230000 B          | 190000 B          | 210000 B           | 240000 B          | 230000 B          | 200000 B          | 200000 B          | 220000 B          |                   |                   |                    |                   | 290000           |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U            | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                   |                    |                   |                  |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 190000 B         | 230000 B          | 190000 B          | 210000 B           | 240000 B          | 230000 B          | 200000 B          | 200000 B          | 220000 B          |                   |                   |                    |                   | 270000           | 290000            |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   | 20 U              |                   |                    |                   |                  |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      | 180000           | 180000 B          | 180000 B          | 220000 B           | 170000            | 170000 B          | 160000 B          | 170000 B          | 180000            |                   |                   |                    |                   | 32000            | 32000             |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2100             | 2500              | 2400              | 2800 B             | 1800 B            | 2700 H B          | 2500 B            | 2200              | 2400 B            |                   |                   |                    |                   |                  |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 48000            | 59000 B           | 61000             | 72000 B            | 68000             | 57000             | 55000             | 50000             | 59000             |                   |                   |                    | 81000             | 99000            |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   |                   |                    |                   |                   |                   |                   |                   | 18                | 5 U               | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                   |                   |                    |                   |                   |                   |                   |                   | 5 U               | 5 U               | 0 U                | 10 U              | 10 U             | 0 U               | 0 U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    | 380000            | 350000           |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    | 500000            | 470000           |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-51D<br>5/12/08 | MW-51D<br>9/18/08 | MW-51D<br>6/30/10 | MW-51D<br>9/18/13 | MW-51D<br>9/18/13 | MW-51D<br>1/21/14 | MW-51D<br>3/21/14 | MW-51D Dup<br>3/21/14 | MW-51D<br>5/6/14 | MW-51D<br>6/5/14 | MW-51D<br>7/9/14 | MW-51D<br>8/8/14 | MW-51D<br>9/10/14 | MW-51D<br>10/9/14 | MW-51D<br>10/30/14 | MW-51D<br>10/30/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 150000 B          | 94000 B           | 170000 B              | 180000 B         | 180000 B         | 230000 B         | 220000 B         | 280000            | 240000 B          | 270000 B           |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 9400                  | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U            | 5000 U             |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   | 110000 B          |                   | 150000 B          | 94000 B           | 180000 B              | 180000 B         | 180000 B         | 230000 B         | 220000 B         | 280000            | 240000 B          | 270000 B           |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                   |                   |                   | 79000             | 92000             | 560000                | 110000           | 120000 B         | 160000 B         | 120000           | 150000 B          | 150000 B          | 220000 B           |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   | 180 J             | 810               | 2400              | 1400              | 3900 B                | 2500             | 3200             | 1900             | 1600             | 1200              | 1000 B            |                    |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   | 27000             |                   | 30000             | 13000             | 26000                 | 37000            | 42000 B          | 60000 B          | 42000            | 62000 B           | 59000             | 72000 B            |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   | R                 |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   | 3000 U             |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2.7 B J           | 10 U              |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U              |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    | 2300               |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    | 0.50 U             |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    | 0.34 J             |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    | 0.66 B             |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    | 426000             |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 4100 B            |                   |                       |                  |                  |                  |                  |                   |                   |                    | 1200               |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                       |                  |                  |                  |                  |                   |                   |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-51D<br>1/15/15 | MW-51D<br>2/27/15 | MW-51D<br>3/27/15 | MW-51D<br>4/23/15 | MW-51D<br>5/21/15 | MW-51S<br>10/4/91 | MW-51S<br>11/1/91 | MW-51S<br>7/16/96 | MW-51S<br>12/11/98 | MW-51S<br>9/20/99 | MW-51S<br>4/5/00 | MW-51S<br>6/26/01 | MW-51S<br>6/18/02 | MW-51S<br>6/6/03 | MW-51S<br>8/4/04 | MW-51S<br>6/17/05 | MW-51S<br>6/24/06 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 270000 B          | 290000 B          | 21000 B           | 210000 B          | 240000 B          |                   |                   |                   |                    |                   | 240000           |                   |                   |                  |                  |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 270000 B          | 290000 B          | 21000 B           | 210000 B          | 240000 B          |                   |                   |                   |                    |                   | 240000           |                   |                   |                  |                  |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 200 U             | 100 U             |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      | 240000            | 170000 B          | 5500 B            | 82000 B           | 110000            |                   |                   |                   |                    | 40000             | 40000            |                   |                   |                  |                  |                   |                   |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 650 B                | 880 H B           | 360 B             | 980               | 1300 B            |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 67000             | 63000             | 7200 F1           | 37000             | 50000             |                   |                   |                   |                    | 33000             | 32000            |                   |                   |                  |                  |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                   |                   |                   | 40                | 10                | 0 U               | 10 U               | 10 U              | 0 U              | 7                 | 5                 | 5 U              | 10 U             | 2.3               |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                   |                   |                   | 5                 | 10                | 10                | 19                 | 10 U              | 17               | 21                | 19                | 35               | 5 U              | 13                |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   | 290000             | 260000            |                  |                   |                   |                  |                  |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   | 440000             | 380000            |                  |                   |                   |                  |                  |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                   |                   |                    |                   |                  |                   |                   |                  |                  |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-51S<br>6/29/07 | MW-51S<br>5/20/08 | MW-51S<br>10/2/08 | MW-51S<br>7/1/09 | MW-51S<br>7/6/10 | MW-51S<br>9/12/13 | MW-51S<br>9/12/13 | MW-51S<br>1/29/14 | MW-51S<br>2/18/14 | MW-51S<br>3/20/14 | MW-51S<br>5/7/14 | MW-51S<br>6/4/14 | MW-51S<br>7/8/14 | MW-51S<br>8/7/14 | MW-51S<br>9/9/14 | MW-51S<br>10/8/14 | MW-51S<br>10/29/14 |          |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|----------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   | 210000 B          | 210000 B          | 210000 B          | 200000 B         | 180000 B         | 210000 B         | 210000           | 260000 B         | 220000 B          | 240000 B           |          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             |          |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   | 210000 B          | 210000 B          | 210000 B          | 200000 B         | 180000 B         | 210000 B         | 210000           | 260000 B         | 220000 B          | 240000 B           |          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                   |                  |                  |                   | 150000 B          |                   | 170000            | 180000            | 190000           | 170000           | 210000 B         | 210000 B         | 180000           | 170000 B          | 180000 B           | 200000 B |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                  |                  | 2600              |                   | 3200              | 2900              | 3000              | 3000             | 3300             | 3300             | 3100             | 2900             | 2800              | 3000 B             |          |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  | 52000             |                   | 56000             | 60000             | 61000             | 64000            | 67000 B          | 70000 B          | 63000            | 64000 B          | 68000 B           | 68000 B            |          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  | 3000 U            |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   | 3000 U             |          |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2 U               | 4.1 B J           | 7.4 B             | 6.6 B J          |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10.2              | 32 J              | 6 B               | 12               |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   | 14000 J            |          |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   | 0.50 U             |          |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   | 0.63               |          |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   | 1                  |          |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   | 351000            |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   | 1600 B            |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                  |                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |          |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-51S<br>10/29/14 | MW-51S<br>1/15/15 | MW-51S<br>2/26/15 | MW-51S<br>3/26/15 | MW-51S<br>4/22/15 | MW-51S<br>5/20/15 | MW-52<br>1/2/92 | MW-52<br>2/4/92 | MW-52<br>9/28/99 | MW-52<br>3/22/00 | MW-52<br>5/6/08 | MW-52<br>9/4/08 | MW-53<br>1/2/92 | MW-53<br>2/4/92 | MW-53<br>9/28/99 | MW-53<br>3/22/00 | MW-53<br>4/23/08 | MW-53<br>9/11/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    | 220000 B          | 220000 B          | 220000 B          | 230000 B          | 200000 B          |                 |                 | 240000           | 180000           |                 |                 |                 |                 | 72000            | 72000            |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    | 220000 B          | 220000 B          | 220000 B          | 230000 B          | 200000 B          |                 |                 | 240000           | 180000           |                 |                 |                 |                 | 72000            | 72000            |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 2 U             | 2 U             |                  |                  |                 |                 | 2 U             | 2 U             |                  |                  |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    | 180000            | 170000 B          | 150000 B          | 170000            | 160000 B          |                 |                 | 25000            | 22000            |                 |                 |                 |                 | 32000            | 87000            |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    | 3400 B            | 2900              | 2800 B            | 2600              | 2800 B            |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                    | 60000             | 54000             | 54000 B           | 54000             | 59000             |                 |                 | 21000            | 16000            |                 |                 |                 |                 | 26000            | 21000            |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                   |                   |                   |                   |                   | 50 U            | 5 U             | 10 U             | 10 U             | 1.6 B           | 10 U            | 50 U            | 50 U            | 10 U             | 10 U             | 10 U             | 1.7 B J          |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                   |                   |                   |                   |                   | 5 U             | 5 U             | 10 U             | 10 U             | 10 U            | 10 U            | 6               | 8               | 10 U             | 10 U             | 10 U             | 2 B              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 | 260000           | 30000            |                 |                 |                 |                 | 110000           | 150000           |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  | 7.22 SU          |                 |                 |                 |                 |                  | 6.33 SU          |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 | 350000           | 250000           |                 |                 |                 |                 | 160000           | 300000           |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      | 1600               |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                   |                   |                   |                   |                 |                 | 0 U              |                  |                 |                 |                 |                 | 0 U              |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                 |                 |                  |                  |                 |                 |                 |                 |                  |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-54<br>7/29/93 | MW-54<br>7/17/96 | MW-54<br>12/10/98 | MW-54<br>9/29/99 | MW-54<br>4/10/00 | MW-54<br>6/26/01 | MW-54<br>6/13/02 | MW-54<br>5/27/08 | MW-54<br>10/8/08 | MW-55<br>7/29/93 | MW-55<br>10/27/95 | MW-55<br>5/23/08 | MW-55<br>10/8/08 | MW-55<br>6/30/09 | MW-55<br>7/9/10 | MW-56<br>11/19/93 | MW-56<br>10/27/95 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-----------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                   |                  | 250000           | 250000           |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                   |                  | 250000           | 250000           |                  |                  |                  |                  | 290000            |                  |                  |                  |                 |                   | 300000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      | 250 U            |                  |                   |                  |                  |                  |                  |                  |                  | 50 U             | 500 U             |                  |                  |                  |                 |                   | 500 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                   |                  | 32000            | 36000            |                  |                  |                  |                  | 32000             |                  |                  |                  |                 |                   | 36000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 30                |                  |                  |                  |                 |                   | 80                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 2600              |                  |                  |                  |                 |                   | 2000              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                   | 22000            | 25000            |                  |                  |                  |                  |                  | 36000             |                  |                  |                  |                 |                   | 26000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 5 U              | 0 U               | 10 U             | 10 U             | 0 U              | 0 U              | 10 U             | 10 U             | 10 U             | 5 U               | 10 U             | 1.7 B            | 2.2 B J          |                 |                   | 10                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U              | 5 U              | 0 U               | 10 U             | 10 U             | 0 U              | 0 U              | 10 U             | 10 U             | 5 U              | 5 U               | 11 J             | 10 U             | 10 U             |                 | 10                | 10                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 5000 U            |                  |                  |                  |                 |                   | 5000 U            |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                   | 290000           | 330000           |                  |                  |                  |                  |                  | 320000            |                  |                  |                  |                 |                   | 300000            |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 7.50 SU           |                  |                  |                  |                 |                   | 7.57 SU           |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 500               |                  |                  |                  |                 |                   | 400               |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  | 780 umhos/cm      |                  |                  |                  |                 |                   | 800 umhos/cm      |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                   | 390000           | 360000           |                  |                  |                  |                  |                  | 430000            |                  |                  |                  |                 | 353000            | 440000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                  |                 |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-56<br>9/30/99 | MW-56<br>3/20/00 | MW-56<br>3/30/00 | MW-56<br>5/7/08 | MW-57<br>11/19/93 | MW-57<br>7/13/95 | MW-57<br>10/27/95 | MW-57<br>9/29/99 | MW-57<br>4/3/00 | MW-57<br>5/22/08 | MW-57<br>9/30/08 | MW-59<br>5/26/95 | MW-59<br>9/21/99 | MW-59<br>4/4/00 | MW-60<br>5/26/95 | MW-60<br>9/29/99 | MW-60<br>4/4/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|-----------------|-------------------|------------------|-------------------|------------------|-----------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 310000           |                  | 310000           |                 |                   |                  |                   |                  | 200000          |                  |                  |                  |                  | 220000          |                  |                  | 130000          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 310000           |                  | 310000           |                 |                   |                  | 210000            |                  | 200000          |                  |                  |                  |                  | 220000          |                  |                  | 130000          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                 | 1 U               |                  | 500 U             |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Chloride                         |                            | 250000                   |                           |                          |                      | 37000            |                  | 38000            |                 |                   |                  | 12000             | 22000            | 35000           |                  |                  |                  | 25000            | 22000           |                  | 97000            | 89000           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                 |                   |                  | 60                |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                 |                   |                  | 4600              |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Sulfate                          |                            |                          |                           |                          |                      | 22000            |                  | 23000            |                 |                   |                  | 15000             | 28000            | 18000           |                  |                  |                  | 310000           | 290000          |                  | 370000           | 400000          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 0 U              | 10 U             | 10 U            | 10 U              |                  | 5 U               | 10 U             | 10 U            | 10 U             | 10 U             | 30               | 10 U             | 10 U            | 20               | 10 U             | 10 U            |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 12.6             | 13               | 10 U            | 5 U               |                  | 5 U               | 10 U             | 10 U            | 10 U             | 10 U             | 30               | 10 U             | 10 U            | 20               | 12               | 10              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  | 5000 U            |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 300000           |                  | 290000           |                 |                   |                  | 220000            | 270000           | 240000          |                  |                  |                  | 300000           | 430000          |                  | 580000           | 510000          |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   | 7.63 SU          | 7.85 SU           |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  | 400               |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   | 490 umhos/cm     | 570 umhos/cm      |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 460000           |                  | 440000           |                 |                   |                  | 330000            | 370000           | 310000          |                  |                  |                  | 550000           | 670000          |                  | 1000000          | 1.00E+06        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                 |                   |                  |                   |                  |                 |                  |                  |                  |                  |                 |                  |                  |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-61D<br>10/18/95 | MW-61D<br>12/29/95 | MW-61D<br>9/27/99 | MW-61D<br>3/23/00 | MW-61S<br>10/20/95 | MW-61S<br>12/29/95 | MW-61S<br>9/27/99 | MW-61S<br>3/22/00 | MW-62D<br>10/18/95 | MW-62D<br>12/29/95 | MW-62S<br>10/20/95 |        |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    | 220000            | 240000            |                    |                    | 250000             | 210000 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000             | 240000             | 220000            | 240000            | 230000             | 230000             | 250000            | 210000            | 190000             | 190000             | 260000             |        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Bromide                          |                            |                          |                           |                          |                      | 500 U              | 500 U              |                   |                   | 770                | 900                |                   |                   | 500 U              | 500 U              | 560                |        |
| Chloride                         |                            |                          | 250000                    |                          |                      | 43000              | 15000              | 20000             | 19000             | 96000              | 66000              | 37000             | 110000            | 18000              | 11000              | 34000              |        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  | 60                 | 90                 |                   |                   | 60                 | 30                 |                   |                   | 90                 | 90                 | 180                |        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2700               | 1200               |                   |                   | 2000               | 1200               |                   |                   | 3600               | 3300               | 3200               |        |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Sulfate                          |                            |                          |                           |                          |                      | 66000              | 41000              | 48000             | 55000             | 41000              | 4400               | 5000              | 3800              | 46000              | 29000              | 200000             |        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                | 5 U                | 10 U              | 10 U              | 5 U                | 5 U                | 10 U              | 10 U              | 5 U                | 5 U                | 10                 |        |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                | 5 U                | 10 U              | 10 U              | 5 U                | 5 U                | 10 U              | 10 U              | 5 U                | 5 U                | 10                 |        |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U             | 5000 U             |                   |                   | 5000 U             | 5000 U             |                   |                   | 5000 U             | 5000 U             | 5000 U             |        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Ethane                           |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Ethene                           |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 240000             | 240000             | 260000            | 280000            | 320000             | 320000             | 220000            | 290000            | 220000             | 210000             | 140000             |        |
| Methane                          |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| pH                               |                            |                          |                           |                          |                      | 7.92 SU            | 7.67 SU            |                   | 7.49 SU           | 7.47 SU            | 7.33 SU            |                   | 7.37 SU           | 7.69 SU            | 7.70 SU            | 7.72 SU            |        |
| Silica                           |                            |                          |                           |                          |                      | 400                | 500                |                   |                   | 400                | 400                |                   |                   | 400                | 400                | 500                |        |
| Specific Conductance             |                            |                          |                           |                          |                      | 790 umhos/cm       | 570 umhos/cm       |                   |                   | 910 umhos/cm       | 740 umhos/cm       |                   |                   | 570 umhos/cm       | 520 umhos/cm       | 1200 umhos/cm      |        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 400000             | 290000             | 320000            | 330000            | 480000             | 360000             | 370000            | 460000            | 290000             | 250000             | 830000             |        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                    |                   |                   |                    |                    |                   |                   |                    |                    |                    |        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-62S<br>12/29/95 | MW-63D<br>10/19/95 | MW-63D<br>12/29/95 | MW-63S<br>10/19/95 | MW-63S<br>12/28/95 | MW-64D<br>10/18/95 | MW-64D<br>12/28/95 | MW-64D<br>9/17/99 | MW-64D<br>4/6/00 | MW-64D<br>6/25/01 | MW-64D<br>6/14/02 | MW-64D<br>5/19/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    | 150000            | 160000           |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000             | 200000             | 180000             | 190000             | 190000             | 150000             | 130000             | 150000            | 160000           |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      | 500 U              | 500 U              | 500 U              | 500 U              | 500 U              | 500 U              | 500 U              |                   |                  |                   |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      | 15000              | 11000              | 5300               | 12000              | 8800               | 5800               | 5000 U             | 5000 U            | 5000 U           |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  | 230                | 490                | 440                | 70                 | 50                 | 180                | 160                |                   |                  |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 290                | 1800               | 2000               | 3700               | 4000               | 4200               | 3800               |                   |                  |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 120000             | 44000              | 16000              | 9600               | 5000               | 3000 U             | 3000 U             | 1000 U            | 2100             |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 10 U              | 10 U             | 0 U               | 0 U               | 1.9 B J           |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 5 U                | 10 U              | 10 U             | 0 U               | 0 U               | 1.7 B J           |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             |                   |                  |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 190000             | 210000             | 220000             | 200000             | 230000             | 150000             | 150000             | 14000             | 150000           |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      | 7.46 SU            | 7.71 SU            | 7.70 SU            | 7.77 SU            | 7.52 SU            | 7.71 SU            | 7.78 SU            |                   |                  |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      | 400                | 400                | 500                | 500                | 500                | 500                | 500                |                   |                  |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      | 790 umhos/cm       | 560 umhos/cm       | 450 umhos/cm       | 480 umhos/cm       | 460 umhos/cm       | 350 umhos/cm       | 320 umhos/cm       |                   |                  |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 470000             | 310000             | 210000             | 250000             | 250000             | 180000             | 180000             | 220000            | 190000           |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                   |                  |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics; matrix interference.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-64D<br>9/29/08 | MW-64D<br>6/28/10 | MW-64D<br>9/11/13 | MW-64D<br>9/11/13 | MW-64D<br>10/22/14 | MW-64D<br>10/22/14 | MW-64S<br>12/29/95 | MW-64S<br>12/8/98 | MW-64S<br>4/10/00 | MW-64S<br>6/25/01 | MW-64S<br>5/14/08 | MW-64S<br>9/25/08 | MW-64S<br>7/1/10 | MW-64S<br>9/12/13 | MW-64S<br>9/12/13 | MW-65D<br>9/7/99 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                   | 190000 B           |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   | 31000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   | 5000 U             |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   | 170000 B          |                   | 190000 B           |                    | 86000              |                   |                   |                   |                   |                   |                  | 11000 B           |                   | 31000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 500 U              |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   | 5800 B            |                   | 6000               |                    | 5000 U             |                   |                   |                   |                   |                   |                  | 3600 B            |                   | 20000            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                    |                    | 40                 |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   | 3500              |                   | 3800               |                    | 5500               |                   |                   |                   |                   |                   |                  | 3500              |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   | 2100              |                   | 1400               |                    | 52000              |                   |                   |                   |                   |                   |                  | 2200              |                   | 7600             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   | 3000 U            |                   | 3000 U             |                    |                    |                   |                   |                   |                   |                   |                  | 3000 U            |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              |                   |                   |                   |                    |                    | 5 U                | 0 U               | 10 U              | 0 U               | 10 U              | 10 U              |                  |                   |                   | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              |                   |                   |                   |                    |                    | 5 U                | 0 U               | 10 U              | 0 U               | 10 U              | 10 U              |                  |                   |                   | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   | 2700               |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 5000 U             |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   | 0.50 U             |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   | 0.50 U             |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 43000              |                   |                   |                   |                   |                   |                  |                   |                   | 63000            |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   | 0.50 U             |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 6.40 SU            |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 750                |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    | 320 umhos/cm       |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   | 217000            |                   |                    |                    | 280000             |                   |                   |                   |                   |                   |                  | 195000            |                   | 170000           |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   | 550 J B            |                    | 340 J              |                   |                   |                   |                   |                   |                  |                   |                   | 920 J B          |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                    |                    |                    |                   |                   |                   |                   |                   |                  |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-65D<br>3/27/00 | MW-65D<br>4/25/08 | MW-65D Dup<br>4/25/08 | MW-65D<br>9/10/08 | MW-65S<br>9/1/99 | MW-65S<br>4/4/00 | MW-65S<br>5/8/08 | MW-66D<br>9/9/99 | MW-66D<br>3/28/00 | MW-66D<br>4/30/08 | MW-66S<br>9/1/99 | MW-66S<br>3/28/00 | MW-66S<br>4/30/08 | MW-66S<br>9/10/08 | MW-67D<br>9/7/99 | MW-67D<br>3/29/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-----------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 25000             |                   |                       |                   | 22000            | 17000            |                  | 37000            | 39000             |                   | 36000            | 47000             |                   |                   |                  | 37000             |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 25000             |                   |                       |                   | 22000            | 17000            |                  | 37000            | 39000             |                   | 36000            | 47000             |                   |                   |                  | 37000             |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 25000             |                   |                       |                   | 7500             | 14000            |                  | 15000            | 14000             |                   | 15000            | 17000             |                   |                   | 12000            | 12000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 4800              |                   |                       |                   | 21000            | 14000            |                  | 5800             | 12000             |                   | 1000 U           | 11000             |                   |                   | 1000 U           | 2200              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 15                | 1.8 B J               | 10 U              | 10 U             | 10 U             | 210 J            | 10 U             | 10 U              | 10 U              | 10 U             | 10 U              | 10 U              | 10 U              | 10 U             | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 3.8 B             | 2.5 B                 | 10 U              | 10 U             | 10 U             | 10 U             | 10 U             | 10 U              | 10 U              | 10 U             | 10 U              | 10 U              | 10 U              | 10 U             | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 56000             |                   |                       |                   | 33000            | 46000            |                  | 67000            | 60000             |                   | 63000            | 73000             |                   |                   | 87000            | 53000             |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 120000            |                   |                       |                   | 180000           | 150000           |                  | 130000           | 130000            |                   | 120000           | 170000            |                   |                   | 170000           | 120000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                       |                   |                  |                  |                  |                  |                   |                   |                  |                   |                   |                   |                  |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-67D<br>5/6/08 | MW-67S<br>9/1/99 | MW-67S<br>3/31/00 | MW-67S<br>5/6/08 | MW-68<br>9/9/99 | MW-68<br>3/28/00 | MW-68<br>5/12/08 | MW-69<br>9/9/99 | MW-69<br>4/4/00 | MW-69<br>6/25/01 | MW-69<br>6/12/02 | MW-69<br>5/5/08 | MW-69<br>9/22/08 | MW-70D<br>9/10/99 | MW-70D<br>4/3/00 | MW-70D<br>5/15/08 | MW-70S<br>9/10/99 | MW-70S<br>4/3/00 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|-------------------|------------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|------------------|-----------------|------------------|-------------------|------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  | 49000             |                  | 66000           | 47000            |                  | 140000          | 150000          |                  |                  |                 |                  | 100000            | 110000           |                   | 18000             | 10000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  | 49000             |                  | 66000           | 47000            |                  | 140000          | 150000          |                  |                  |                 |                  | 100000            | 110000           |                   | 18000             | 10000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  | 7500             | 9700              |                  | 7500            | 14000            |                  | 20000           | 7800            |                  |                  |                 |                  | 0                 | 5800             |                   | 0                 | 11000            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 9800             | 3000             |                   | 6000             | 5700            |                  |                  | 23000           | 28000           |                  |                  |                 |                  | 38000             | 13000            |                   | 48000             | 9000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 10 U             | 10 U              | 10 U             | 10 U            | 10 U             | 2.9 B J          | 10 U            | 10 U            | 0 U              | 0 U              | 10 U            | 2.2 B J          | 10 U              | 10 U             | 10 U              | 10 U              | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 10 U             | 10 U              | 10 U             | 10 U            | 10 U             | 10 U             | 10 U            | 10 U            | 0 U              | 0 U              | 7.8 B J         | 10 U             | 10 U              | 10 U             | 10 U              | 10 U              | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 110000           | 77000            |                   | 77000            | 48000           |                  |                  | 150000          | 160000          |                  |                  |                 |                  | 120000            | 110000           |                   | 40000             | 30000            |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 200000           | 140000           |                   | 88000            | 77000           |                  |                  | 180000          | 180000          |                  |                  |                 |                  | 170000            | 160000           |                   | 100000            | 88000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                 |                  |                  |                 |                 |                  |                  |                 |                  |                   |                  |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-70S<br>5/12/08 | MW-71D<br>9/10/99 | MW-71D Dup<br>9/10/99 | MW-71D<br>4/5/00 | MW-71D<br>6/21/01 | MW-71S<br>6/21/01 | MW-72<br>9/13/99 | MW-72<br>3/28/00 | MW-73<br>9/13/99 | MW-73<br>3/24/00 | MW-74D<br>9/15/99 | MW-74D<br>4/6/00 | MW-74D<br>6/21/01 | MW-74D<br>6/14/02 | MW-74D<br>5/9/08 | MW-74D<br>9/17/08 | MW-74D<br>6/22/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-----------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   | 140000            | 130000                | 150000           |                   |                   | 110000           | 150000           | 170000           | 180000           |                   | 260000           |                   |                   |                  |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   | 140000            | 130000                | 150000           |                   |                   | 110000           | 150000           | 170000           | 180000           |                   | 260000           |                   |                   |                  |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   | 0                 | 0                     | 5000 U           |                   |                   | 5000 U           | 5200             | 5000 U           | 5000 U           | 110000            | 35000            |                   |                   |                  |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                   | 19000             | 19000                 | 11000            |                   |                   | 18000            | 4300             | 13000            | 13000            | 60000             | 55000            |                   |                   |                  |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2.7 BJ            | 10 U              | 10 U                  | 10 U             | 0 U               | 0 U               | 10 U             | 10 U             | 10 U             | 10 U             | 10 U              | 10 U             | 0 U               | 0 U               | 10 U             | 10 U              |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U              | 10 U                  | 10 U             | 0 U               | 0 U               | 10 U             | 10 U             | 10 U             | 10 U             | 10 U              | 10 U             | 0 U               | 0 U               | 10 U             | 10 U              |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   | 130000            | 140000                | 8000             |                   |                   | 120000           | 140000           | 180000           | 180000           | 20000             | 290000           |                   |                   |                  |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  | 7.83 SU          |                   |                  |                   |                   |                  |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   | 190000            | 210000                | 150000           |                   |                   | 180000           | 160000           | 170000           | 190000           | 670000            | 410000           |                   |                   |                  | 474000            |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                       |                  |                   |                   |                  |                  |                  |                  |                   |                  |                   |                   |                  |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-74S<br>9/15/99 | MW-74S<br>4/3/00 | MW-74S<br>6/21/01 | MW-74S<br>6/13/02 | MW-74S<br>4/29/08 | MW-74S<br>9/16/08 | MW-74S<br>6/22/10 | MW-74S<br>1/20/14 | MW-74S<br>2/26/14 | MW-74S<br>3/20/14 | MW-74S<br>5/7/14 | MW-74S<br>6/3/14 | MW-74S<br>7/1/14 | MW-74S<br>8/6/14 | MW-74S<br>9/9/14 | MW-74S<br>10/7/14 | MW-74S<br>10/30/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   | 260000 B          | 260000 B          | 230000 B          | 230000 B         | 220000           | 230000 B         | 240000 B         | 270000 B         | 250000 B          | 260000 B           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   | 260000 B          | 260000 B          | 230000 B          | 230000 B         | 220000           | 230000 B         | 240000 B         | 270000 B         | 250000 B          | 260000 B           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      | 35000             | 16000            |                   |                   |                   |                   |                   | 120000            | 140000            | 180000            | 140000           | 190000 B         | 190000 B         | 170000           | 170000 B         | 160000 B          | 180000 B           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                  |                   |                   |                   |                   |                   | 3200              | 2700              | 3600              | 3000 B           | 4400             | 4200             | 3400             | 3800             | 3400              | 3400 B             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Sulfate                          |                            |                          |                           |                          |                      | 39000             | 21000            |                   |                   |                   |                   |                   | 45000             | 74000             | 49000             | 45000            | 57000 B          | 58000            | 60000            | 58000 B          | 54000 B           | 58000 B            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 1.7 B J           |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 260000            | 220000           |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 420000            | 300000           |                   |                   |                   |                   | 390000            |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-74S<br>1/16/15 | MW-74S<br>2/24/15 | MW-74S<br>3/26/15 | MW-74S<br>4/23/15 | MW-74S<br>5/21/15 | MW-75D<br>9/17/99 | MW-75D<br>4/7/00 | MW-75D<br>6/26/01 | MW-75D<br>6/18/02 | MW-75D<br>4/15/04 | MW-75D<br>5/21/08 | MW-75D<br>10/2/08 | MW-75D<br>1/24/14 | MW-75D<br>2/19/14 | MW-75D<br>3/20/14 | MW-75D<br>5/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 280000 B          | 240000 B          | 220000 B          | 240000 B          | 240000 B          | 220000            | 230000           |                   |                   |                   |                   |                   | 250000 B          | 260000 B          | 200000 B          | 210000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                  |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 280000 B          | 240000 B          | 220000 B          | 240000 B          | 240000 B          | 220000            | 230000           |                   |                   |                   |                   |                   | 250000 B          | 260000 B          | 200000 B          | 210000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 160000            | 53000 B           | 65000 B           | 74000 B           | 76000             | 37000             | 37000            |                   |                   |                   |                   |                   | 130000 B          | 160000            | 160000            | 190000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3700 B            | 1700              | 1900 B            | 1700              | 2100 B            |                   |                  |                   |                   |                   |                   |                   | 3700              | 3700              | 3800              | 5500 B           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 54000             | 16000             | 18000 B           | 14000             | 21000             | 36000             | 31000            |                   |                   |                   |                   |                   | 23000             | 24000             | 26000             | 36000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                   |                   |                   | 10 U              | 10 U             | 0 U               | 0 U               |                   | 10 U              | 10 U              |                   |                   |                   |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                   |                   |                   | 10 U              | 10 U             | 0 U               | 0 U               | 5 U               | 2 B J             | 10 U              |                   |                   |                   |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 280000            | 240000           |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   | 380000            | 340000           |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |                   |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-75D<br>6/2/14 | MW-75D<br>7/1/14 | MW-75D<br>8/7/14 | MW-75D<br>9/9/14 | MW-75D<br>10/7/14 | MW-75D<br>10/29/14 | MW-75D<br>1/14/15 | MW-75D<br>2/24/15 | MW-75D<br>3/27/15 | MW-75D<br>4/21/15 | MW-75D<br>5/19/15 | MW-75S<br>9/17/99 | MW-75S<br>4/7/00 | MW-75S<br>6/26/01 | MW-75S<br>6/18/02 | MW-75S<br>4/15/04 | MW-75S<br>5/21/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 180000           | 210000 B         | 200000           | 200000 B         | 220000 B          | 180000 B           | 210000 B          | 210000 B          | 260000 B          | 270000 B          | 210000 B          | 160000            | 160000           |                   |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                  |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 180000 B         | 210000 B         | 200000           | 200000 B         | 220000 B          | 180000 B           | 210000 B          | 210000 B          | 260000 B          | 270000 B          | 210000 B          | 160000            | 160000           |                   |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 130000           | 150000           | 130000           | 150000 B         | 150000 B          | 170000 B           | 160000            | 160000 B          | 170000 B          | 160000            | 170000            | 25000             | 26000            |                   |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3200             | 5000 B           | 3200             | 3500             | 3300              | 3700 B             | 3500 B            | 3400              | 3200 B            | 3000              | 3300 B            |                   |                  |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 29000            | 29000            | 28000            | 28000 B          | 28000 B           | 30000 B            | 30000             | 31000             | 32000             | 31000             | 32000             | 33000             | 20000            |                   |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U              | 10 U             | 0 U               | 0 U               |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 180000            | 170000           |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 290000            | 240000           |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   | 0.5 U             |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-75S<br>10/6/08 | MW-75S<br>7/6/10 | MW-75S<br>1/24/14 | MW-75S<br>2/19/14 | MW-75S<br>3/19/14 | MW-75S<br>5/8/14 | MW-75S<br>6/2/14 | MW-75S<br>7/1/14 | MW-75S<br>8/6/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                  | 230000 B          | 230000 B          | 200000 B          | 200000 B         | 190000           | 190000 B         | 210000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5300             | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                  | 230000 B          | 230000 B          | 200000 B          | 200000 B         | 200000 B         | 190000 B         | 210000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                  | 130000 B          | 150000            | 160000            | 140000 B         | 110000           | 75000            | 110000           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                  | 3600              | 3700              | 3900              | 3100 B           | 2700             | 2100 B           | 2100             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                  | 28000             | 29000             | 29000             | 32000            | 29000            | 30000            | 33000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 1.9 B             |                  |                   |                   |                   |                  |                  |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  | 757000            |                   |                   |                  |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                  |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-75S<br>9/8/14 | MW-75S<br>10/6/14 | MW-75S<br>10/29/14 | MW-75S<br>1/14/15 | MW-75S<br>2/24/15 | MW-75S<br>3/25/15 | MW-75S<br>4/21/15 | MW-75S<br>5/19/15 | MW-76<br>9/14/99 | MW-76<br>3/28/00 | MW-76<br>6/21/01 | MW-76<br>6/11/02 | MW-77<br>9/10/99 | MW-77<br>3/24/00 | MW-77<br>4/24/08 | MW-77<br>10/2/08 | MW-77<br>7/8/10 | MW-78<br>9/9/99 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 200000 B         | 210000 B          | 200000 B           | 200000 B          | 210000 B          | 220000 B          | 210000 B          | 220000 B          |                  | 280000           |                  |                  |                  | 290000           |                  |                  |                 | 16000           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 200000 B         | 210000 B          | 200000 B           | 200000 B          | 210000 B          | 220000 B          | 210000 B          | 220000 B          |                  | 280000           |                  |                  |                  | 290000           |                  |                  |                 | 16000           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      | 150000 B         | 150000 B          | 170000 B           | 820000            | 120000 B          | 140000 B          | 130000            | 130000            | 30000            | 14000            |                  |                  | 0                | 11000            |                  |                  |                 | 5000 U          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3900             | 3800              | 4100 B             | 21000 B           | 2400              | 2300 B            | 2300              | 2300 B            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      | 32000 B          | 32000 B           | 32000 B            | 160000            | 33000             | 35000             | 33000             | 32000             | 65000            | 65000            |                  |                  | 25000            | 8600             |                  |                  |                 | 1000 U          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U             | 10 U             | 0 U              | 0 U              | 10 U             | 10 U             | 2.9 B            | 10 U             |                 | 10 U            |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U             | 10 U             | 0 U              | 0 U              | 10 U             | 10 U             | 1.7 BJ           | 10 U             |                 | 10 U            |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   | 320000           | 320000           |                  |                  | 340000           | 5000             |                  |                  |                 | 33000           |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  | 6.43             | SU               |                  |                  |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   | 460000           | 410000           |                  |                  | 360000           | 2.30E+06         |                  |                  | 350000          | 46000           |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-78<br>3/22/00 | MW-78<br>4/23/08 | MW-79<br>9/13/99 | MW-79<br>3/23/00 | MW-79<br>4/24/08 | MW-79<br>9/15/08 | MW-79<br>6/22/09 | MW-80<br>9/10/99 | MW-80<br>3/28/00 | MW-80<br>5/1/08 | MW-80<br>6/21/10 | MW-81D<br>9/13/99 | MW-81D<br>4/4/00 | MW-81D<br>6/26/01 | MW-81D<br>6/17/02 | MW-81D<br>5/23/08 | MW-81D<br>10/7/08 | MW-81D<br>7/8/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 24000            |                  | 320000           | 320000           |                  |                  |                  | 340000           | 310000           |                 |                  |                   | 220000           |                   |                   |                   |                   |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 24000            |                  | 320000           | 320000           |                  |                  |                  | 340000           | 310000           |                 |                  |                   | 220000           |                   |                   |                   |                   |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 18000            |                  | 35000            | 38000            |                  |                  |                  | 0                | 64000            |                 |                  | 65000             | 69000            |                   |                   |                   |                   |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 2900             |                  | 10000            | 14000            |                  |                  |                  | 45000            | 20000            |                 |                  | 29000             | 33000            |                   |                   |                   |                   |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 10 U             | 10 U             | 10 U             | 3.4 B            | 2.6 B J          | 2.1 B J          | 10 U             | 10 U             | 10 U            |                  | 10 U              | 10 U             | 0 U               | 0 U               | 1.8 B             | 10 U              |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             | 10 U             | 10 U             | 10 U             | 10 U             | 3200 J           | 10 U             | 10 U             | 10 U             | 4.1 B           |                  | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 42000            |                  | 310000           | 290000           |                  |                  |                  | 390000           | 370000           |                 |                  | 290000            | 290000           |                   |                   |                   |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      | 6.04 SU          |                  |                  | 7.01 SU          |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 140000           |                  | 420000           | 520000           |                  |                  |                  | 480000           | 450000           |                 | 1270000          | 430000            | 490000           |                   |                   |                   |                   | 941000           |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                  |                   |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-815<br>9/13/99 | MW-815<br>4/4/00 | MW-815<br>6/26/01 | MW-815<br>6/17/02 | MW-815<br>5/23/08 | MW-815<br>10/7/08 | MW-815<br>7/9/10 | MW-82<br>9/10/99 | MW-82<br>3/31/00 | MW-82<br>6/20/01 | MW-82<br>6/12/02 | MW-82<br>4/25/08 | MW-82<br>9/12/08 | MW-82<br>6/18/10 | MW-83<br>9/13/99 | MW-83<br>3/22/00 | MW-83<br>5/23/08 | MW-83<br>10/7/08 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 190000            | 210000           |                   |                   |                   |                   |                  | 190000           | 200000           |                  |                  |                  |                  |                  | 170000           | 200000           |                  |                  |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 190000            | 210000           |                   |                   |                   |                   |                  | 190000           | 200000           |                  |                  |                  |                  |                  | 170000           | 200000           |                  |                  |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 120000            | 120000           |                   |                   |                   |                   |                  | 0                | 15000            |                  |                  |                  |                  |                  | 32400            | 40000            |                  |                  |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Sulfate                          |                            |                          |                           |                          |                      | 25000             | 32000            |                   |                   |                   |                   |                  | 12000            | 11000            |                  |                  |                  |                  |                  | 1000 U           | 6400             |                  |                  |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              |                  | 10 U             | 10 U             | 0 U              | 0 U              | 1.9 B            | 3.3 B J          |                  | 10 U             | 10 U             | 10 U             | 1.8 B            |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              | 10 U             | 0 U               | 0 U               | 10 U              | 10 U              |                  | 10 U             | 10 U             | 0 U              | 0 U              | 10 U             | 10 U             |                  | 10 U             | 10 U             | 2.4 B J          | 10 U             |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 320000            | 350000           |                   |                   |                   |                   |                  | 190000           | 200000           |                  |                  |                  |                  |                  | 170000           | 220000           |                  |                  |  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  | 7.34 SU          |                  |                  |  |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 490000            | 620000           |                   |                   |                   |                   |                  | 1030000          | 250000           | 230000           |                  |                  |                  |                  | 275000           | 280000           | 270000           |                  |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-84<br>9/9/99 | MW-84<br>3/30/00 | MW-84<br>5/14/08 | MW-85<br>4/11/00 | MW-85 Dup<br>4/11/00 | MW-85<br>6/22/01 | MW-85<br>6/12/02 | MW-85<br>4/25/08 | MW-85<br>9/18/08 | MW-86D<br>9/7/99 | MW-86D<br>4/3/00 | MW-86D<br>5/5/08 | MW-86S<br>9/7/99 | MW-86S<br>3/31/00 | MW-86S<br>5/5/08 | MW-87<br>9/17/99 | MW-87<br>4/4/00 | MW-87<br>6/26/01 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|------------------|------------------|------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|-----------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000          | 220000           |                  | 260000           |                      |                  |                  |                  |                  |                  | 150000           |                  | 15000            | 34000             |                  | 240000           | 250000          |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000          | 220000           |                  | 260000           |                      |                  |                  |                  |                  |                  | 150000           |                  | 15000            | 34000             |                  | 240000           | 250000          |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Bromide                          |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 20000           | 20000            |                  | 46000            | 39000                |                  |                  |                  |                  | 7500             | 5500             |                  | 7500             | 11000             |                  | 20000            | 22000           |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 6000            | 4700             |                  | 110000           |                      |                  |                  |                  |                  | 1000 U           | 3400             |                  | 5000             | 7500              |                  | 12000            | 4900            |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U            | 10 U             | 10 U             | 10 U             |                      | 0 U              | 0 U              | 10 U             | 10 U             | 10 U             | 10 U             | 2.8 B            | 10 U             | 10 U              | 10 U             | 10 U             | 10 U            | 0 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U            | 10 U             | 10 U             | 10 U             |                      | 0 U              | 0 U              | 10 U             | 4.2 B            | 10 U             | 10 U             | 10 U             | 10 U             | 10 U              | 9.3 B J          | 11               | 10 U            | 0 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 250000          | 230000           |                  | 310000           | 300000               |                  |                  |                  |                  | 153000           | 150000           |                  | 37000            | 50000             |                  | 280000           | 250000          |                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| pH                               |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 280000          | 280000           |                  | 450000           | 470000               |                  |                  |                  |                  | 190000           | 190000           |                  | 92000            | 100000            |                  | 350000           | 320000          |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                  |                  |                  |                      |                  |                  |                  |                  |                  |                  |                  |                  |                   |                  |                  |                 |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-87<br>6/17/02 | MW-87<br>5/15/08 | MW-87<br>10/1/08 | MW-87<br>7/2/10 | MW-87<br>9/4/13 | MW-87<br>10/14/14 | MW-87<br>9/30/15 | MW-88<br>4/10/00 | MW-88<br>6/12/02 | MW-88<br>4/29/08 | MW-88<br>9/25/08 | MW-88<br>6/25/10 | MW-89<br>4/11/00 | MW-89<br>6/22/01 | MW-90<br>4/11/00 | MW-90<br>6/19/01 | MW-91<br>4/10/00 | MW-91<br>6/22/01 | MW-91<br>6/14/02 |        |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|-----------------|-----------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                 | 14              | 16                | 9.7              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  | 280000           |                  |                  |                  |                  | 160000           |                  | 89000            |                  | 38000            |                  |                  |        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  | 280000           |                  |                  |                  |                  | 160000           |                  | 89000            |                  | 38000            |                  |                  |        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                  |                 |                 |                   |                  | 11000            |                  |                  |                  |                  | 5400             |                  | 6900             |                  | 18000            |                  |                  |        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  | 32000            |                  |                  |                  |                  | 11000            |                  | 4800             |                  | 15000            |                  |                  |        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U              | 10 U             | 10 U             |                 |                 |                   |                  | 10 U             | 0 U              | 1.7 B J          | 10 U             |                  | 10 U             | 0 U              | 10 U             | 0 U              | 10 U             | 14               | 0 U              |        |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U              | 10 U             | 10 U             |                 |                 |                   |                  | 10 U             | 0 U              | 10 U             | 10 U             |                  | 10 U             | 0 U              | 10 U             | 0 U              | 10 U             | 108              | 10               |        |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  | 290000           |                  |                  |                  |                  | 170000           |                  | 0                |                  | 52000            |                  |                  |        |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  | 387000           |                  |                  |                  |                  | 360000           |                  |                  |                  | 1010000          | 230000           | 140000           | 260000 |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                 |                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-91<br>6/4/03 | MW-91<br>6/9/04 | MW-91<br>6/21/05 | MW-91<br>6/23/06 | MW-91<br>6/28/07 | MW-91<br>5/7/08 | MW-91<br>9/19/08 | MW-91<br>6/25/09 | MW-92<br>4/10/00 | MW-92<br>6/21/01 | MW-92<br>6/17/02 | MW-92<br>6/4/03 | MW-92<br>6/10/04 | MW-92<br>6/16/05 | MW-92<br>6/22/06 | MW-92<br>6/27/07 | MW-92<br>5/14/08 | MW-92<br>9/30/08 | MW-92<br>7/8/09 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 23000            |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 23000            |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Bromide                          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 21000            |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 6300             |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 8               | 5 U             | 14               | 4.9              | 2 U              | 6.8 B J         | 3.8 B            | 3.3 B J          | 10 U             | 8                | 0 U              | 6               | 5 U              | 10 U             | 2.3              | 2 U              | 6.2 B J          | 5 B              | 14              |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 76              | 25              | 10               | 350              | 59.7             | 27              | 13               | 25               | 10 U             | 24               | 19               | 19              | 15               | 27               | 25               | 23.4 J           | 4.2 B            | 16               | 13              |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 70000            |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  | 140000           |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                  |                  |                  |                 |                  |                  |                  |                  |                  |                 |                  |                  |                  |                  |                  |                  |                 |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-92<br>6/29/10 | MW-93D<br>4/15/04 | MW-93D<br>4/16/04 | MW-93D<br>4/26/04 | MW-93D Dup<br>4/26/04 | MW-93D<br>6/20/05 | MW-93D<br>6/23/06 | MW-93D<br>6/27/07 | MW-93D<br>5/13/08 | MW-93D<br>9/22/08 | MW-93D<br>6/28/10 | MW-93D<br>1/20/14 | MW-93D<br>2/18/14 | MW-93D<br>3/19/14 | MW-93D<br>5/8/14 | MW-93D<br>6/3/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 180000 B          | 180000 B          | 170000 B          | 180000 B         | 190000           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 180000 B          | 180000 B          | 170000 B          | 180000 B         | 190000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 88000             | 87000             | 99000             | 110000 B         | 120000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 260               | 280               | 460               | 720 B            | 1100             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 29000             | 28000             | 29000             | 29000            | 31000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   |                   |                   |                       | 5 U               | 1.7 B             | 2 U               | 5.3 B J           | 2.2 B J           |                   |                   |                   |                   |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  | 0 U               | 5 U               | 10 U              | 10 U                  | 5 U               | 10 U              | 1.8 B J           | 10 U              | 10 U              |                   |                   |                   |                   |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   | 231000            |                   |                   |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   | 0.5 U             | 0.5 U             | 0.5 U                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-93D<br>6/30/14 | MW-93D<br>8/6/14 | MW-93D<br>9/8/14 | MW-93D<br>10/8/14 | MW-93D<br>10/28/14 | MW-93D<br>1/13/15 | MW-93D<br>2/23/15 | MW-93D<br>3/24/15 | MW-93D<br>4/20/15 | MW-93D<br>5/18/15 | MW-93S<br>4/15/04 | MW-93S Dup<br>4/15/04 | MW-93S<br>4/26/04 | MW-93S<br>6/20/05 | MW-93S<br>6/22/06 | MW-93S<br>6/27/07 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 180000            | 180000 B         | 190000 B         | 180000 B          | 160000 B           | 190000 B          | 180000 B          | 190000 B          | 210000 B          | 180000 B          |                   |                       |                   |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                       |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 180000            | 180000 B         | 190000 B         | 180000 B          | 160000 B           | 190000 B          | 180000 B          | 190000 B          | 210000 B          | 180000 B          |                   |                       |                   |                   |                   |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 82000             | 100000           | 110000 B         | 110000 B          | 97000              | 100000            | 100000 B          | 95000 B           | 100000            | 100000            |                   |                       |                   |                   |                   |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 1500 H B          | 860              | 760              | 710               | 310                | 650 B             | 590               | 330 B             | 410               | 510 B             |                   |                       |                   |                   |                   |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 25000             | 26000            | 27000 B          | 27000 B           | 27000              | 27000             | 28000             | 29000             | 31000             | 31000             |                   |                       |                   |                   |                   |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0 U               |                       |                   | 5 U               | 2 U               | 2 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 5 U               | 5 U                   | 10 U              | 5 U               | 10 U              | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   | 0.5 U             | 0.5 U                 | 0.6 U             |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                   |                    |                   |                   |                   |                   |                   |                   |                       |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-93S<br>4/25/08 | MW-93S<br>9/15/08 | MW-93S<br>6/23/10 | MW-93S<br>1/20/14 | MW-93S<br>2/19/14 | MW-93S<br>3/19/14 | MW-93S<br>5/8/14 | MW-93S<br>6/3/14 | MW-93S<br>7/1/14 | MW-93S<br>8/5/14 | MW-93S<br>9/8/14 | MW-93S<br>10/8/14 | MW-93S<br>10/28/14 | MW-93S<br>1/13/15 | MW-93S<br>2/23/15 | MW-93S Dup<br>2/23/15 |          |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-----------------------|----------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   |                   |                   | 260000 B          | 250000 B          | 220000 B         | 220000 B         | 190000           | 190000 B         | 190000 B         | 230000 B          | 230000 B           | 190000 B          | 200000 B          | 210000 B              | 230000 B |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U                | 5000 U   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   |                   |                   | 260000 B          | 250000 B          | 220000 B         | 220000 B         | 190000 B         | 190000 B         | 190000 B         | 230000 B          | 230000 B           | 190000 B          | 200000 B          | 210000 B              | 230000 B |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   |                   |                   | 240000            | 320000            | 320000           | 240000 B         | 280000 B         | 150000           | 110000           | 140000 B          | 130000 B           | 130000            | 140000            | 150000 B              | 150000 B |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   |                   |                   | 1700              | 1600              | 1900             | 2800 B           | 2900             | 2200 B           | 1200             | 2400              | 1500               | 1700              | 2200 B            | 1800                  | 1800     |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Sulfate                          |                            |                          |                           |                          |                      |                   |                   |                   |                   | 42000             | 43000             | 49000            | 43000            | 47000 B          | 34000            | 32000            | 39000 B           | 35000 B            | 35000             | 29000             | 35000                 | 35000    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 9.2 B             | 1.7 B J           |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 3.6 B             | 10 U              |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                       |          |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-93S<br>3/24/15 | MW-93S<br>4/20/15 | MW-93S<br>5/18/15 | MW-94<br>5/8/08 | MW-94<br>9/29/08 | MW-94<br>7/7/10 | MW-95<br>5/2/08 | MW-95<br>9/11/08 | MW-95<br>6/23/10 | MW-95<br>1/20/14 | MW-95<br>2/18/14 | MW-95<br>3/18/14 | MW-95 Dup<br>3/18/14 | MW-95<br>5/6/14 | MW-95<br>6/5/14 | MW-95<br>7/2/14 | MW-95<br>8/6/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-----------------|------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B          | 210000 B          | 180000 B          |                 |                  |                 |                 |                  |                  | 320000 B         | 300000 B         | 300000 B         | 300000 B             | 300000 B        | 240000 B        | 270000          | 260000 B        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U            | 5000 U            |                 |                  |                 |                 |                  |                  | 5000 U           | 5000 U           | 5000 U           | 5000 U               | 5000 U          | 5000 U          | 5000 U          | 5000 U          |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B          | 210000 B          | 180000 B          |                 |                  |                 |                 |                  |                  | 320000 B         | 300000 B         | 300000 B         | 300000 B             | 300000 B        | 240000 B        | 270000          | 260000 B        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      | 170000 B          | 170000            | 150000            |                 |                  |                 |                 |                  |                  | 41000            | 57000            | 37000            | 36000                | 37000 B         | 37000 B         | 37000 B         | 36000           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 1100 B            | 1200              | 1200 B            |                 |                  |                 |                 |                  |                  | 150              | 510              | 7.3 J            | 7.3 J                | 82 J            | 150             | 180             | 210             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      | 27000             | 31000             | 36000             |                 |                  |                 |                 |                  |                  | 54000            | 49000            | 56000            | 53000                | 58000           | 57000 B         | 54000           | 42000           |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                   | 10 U            | 10 U             |                 | 10 U            | 1.7 B J          |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                   | 10 U            | 10 U             |                 | 10 U            | 2.5 B            |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 | 179000          |                  |                  | 391000           |                  |                  |                      |                 |                 |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                 |                  |                 |                 |                  |                  |                  |                  |                  |                      |                 |                 |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-95<br>9/10/14 | MW-95<br>10/8/14 | MW-95<br>10/30/14 | MW-95<br>1/15/15 | MW-95<br>2/27/15 | MW-95<br>3/25/15 | MW-95<br>4/22/15 | MW-95<br>5/20/15 | MW-96D<br>5/2/08 | MW-96D<br>9/24/08 | MW-96D<br>6/28/10 | MW-96D<br>1/21/14 | MW-96D<br>2/18/14 | MW-96D<br>3/25/14 | MW-96D<br>5/6/14 | MW-96D<br>6/3/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 300000 B         | 300000 B         | 300000 B          | 260000 B         | 270000 B         | 280000 B         | 270000 B         | 260000 B         |                  |                   |                   | 270000 B          | 250000 B          | 250000 B          | 250000 B         | 230000           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           |                  |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 300000 B         | 300000 B         | 300000 B          | 260000 B         | 270000 B         | 280000 B         | 270000 B         | 260000 B         |                  |                   |                   | 270000 B          | 250000 B          | 250000 B          | 250000 B         | 230000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 67000 B          | 86000 B          | 63000             | 55000            | 60000 B          | 51000 B          | 49000            | 52000 B          |                  |                   |                   | 100000            | 140000            | 160000 B          | 160000 B         | 170000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 910              | 1200             | 710               | 490 B            | 700 H B          | 790 B            | 630              | 840 B            |                  |                   |                   | 3200              | 3600              | 3700 B            | 4100 B           | 4100             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 50000 B          | 53000 B          | 50000             | 49000            | 37000            | 38000            | 35000            | 32000            |                  |                   |                   | 45000             | 48000             | 51000 B           | 51000            | 54000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                   |                  |                  |                  |                  |                  | 10 U             | 10 U              |                   |                   |                   |                   |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                   |                  |                  |                  |                  |                  | 10 U             | 10 U              |                   |                   |                   |                   |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   | 431000            |                   |                   |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                   |                  |                  |                  |                  |                  |                  |                   |                   |                   |                   |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-96D<br>7/2/14 | MW-96D<br>8/7/14 | MW-96D<br>9/9/14 | MW-96D<br>10/8/14 | MW-96D<br>10/30/14 | MW-96D<br>1/15/15 | MW-96D<br>2/26/15 | MW-96D<br>3/26/15 | MW-96D<br>4/22/15 | MW-96D<br>5/20/15 | MW-96S<br>5/2/08 | MW-96S<br>10/1/08 | MW-96S Dup<br>10/1/08 | MW-96S<br>7/2/10 | MW-96S<br>1/24/14 | MW-96S<br>2/18/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-----------------------|------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 240000           | 240000           | 250000 B         | 260000 B          | 280000 B           | 330000 B          | 260000 B          | 260000 B          | 280000 B          | 270000 B          |                  |                   |                       |                  | 320000 B          | 300000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                  |                   |                       |                  | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000           | 240000           | 250000 B         | 260000 B          | 280000 B           | 330000 B          | 260000 B          | 260000 B          | 280000 B          | 270000 B          |                  |                   |                       |                  | 320000 B          | 300000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 160000 B         | 160000           | 160000 B         | 150000 B          | 170000 B           | 170000            | 140000 B          | 130000 B          | 120000            | 120000 B          |                  |                   |                       |                  | 120000 B          | 170000            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3800             | 4000             | 3800             | 3700              | 4100 B             | 4000 B            | 4100              | 4000 B            | 3700              | 3800 B            |                  |                   |                       |                  | 3400              | 3800              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 52000            | 50000            | 54000 B          | 52000 B           | 54000 B            | 54000             | 49000             | 47000 B           | 44000             | 44000             |                  |                   |                       |                  | 51000             | 56000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U             | 10 U              | 10 U                  |                  |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   | 10 U             | 10 U              | 10 U                  |                  |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  | 499000            |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                  |                   |                       |                  |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-96S<br>3/18/14 | MW-96S<br>5/6/14 | MW-96S<br>6/3/14 | MW-96S<br>7/2/14 | MW-96S<br>8/7/14 | MW-96S<br>9/9/14 | MW-96S<br>10/8/14 | MW-96S<br>10/30/14 | MW-96S<br>1/15/15 | MW-96S<br>2/26/15 | MW-96S<br>3/26/15 | MW-96S<br>4/22/15 | MW-96S<br>5/20/15 | MW-97<br>5/2/08 | MW-97<br>9/19/08 | MW-97<br>1/30/14 | MW-97<br>2/18/14 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|------------------|------------------|------------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 270000 B          | 270000 B         | 260000           | 260000           | 280000           | 320000 B         | 320000 B          | 310000 B           | 330000 B          | 300000 B          | 270000 B          | 330000 B          | 310000 B          |                 |                  | 220000 B         | 210000 B         |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                 |                  | 5000 U           | 5000 U           |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 270000 B          | 270000 B         | 260000 B         | 260000           | 280000           | 320000 B         | 320000 B          | 310000 B           | 330000 B          | 300000 B          | 270000 B          | 330000 B          | 310000 B          |                 |                  | 220000 B         | 210000 B         |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 190000            | 150000 B         | 180000 B         | 170000 B         | 180000           | 170000 B         | 170000 B          | 180000 B           | 180000            | 160000 B          | 150000 B          | 140000            | 140000 B          |                 |                  | 98000 B          | 90000            |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3700              | 3000 B           | 3600             | 3400             | 3600             | 3900             | 3900              | 4400 B             | 4600 B            | 4100              | 3900 B            | 3500              | 3600 B            |                 |                  | 1500             | 1300             |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Sulfate                          |                            |                          |                           |                          |                      | 63000             | 61000            | 64000 B          | 63000            | 56000            | 65000 B          | 64000 B           | 62000 B            | 60000             | 55000             | 53000 B           | 49000             | 51000             |                 |                  | 27000            | 27000            |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 | 10 U             | 10 U             |                  |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 | 10 U             | 10 U             |                  |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                    |                   |                   |                   |                   |                   |                 |                  |                  |                  |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-97<br>3/19/14 | MW-97<br>5/6/14 | MW-97<br>6/5/14 | MW-97<br>7/2/14 | MW-97<br>8/6/14 | MW-97<br>9/9/14 | MW-97<br>10/9/14 | MW-97<br>10/30/14 | MW-97<br>1/15/15 | MW-97<br>2/27/15 | MW-97<br>3/27/15 | MW-97<br>4/21/15 | MW-97 Dup<br>4/21/15 | MW-97<br>5/20/15 | MW-98D<br>5/27/08 | MW-98D<br>9/8/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-------------------|------------------|------------------|------------------|------------------|----------------------|------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 200000 B         | 210000 B        | 160000 B        | 210000          | 220000 B        | 250000 B        | 230000 B         | 250000 B          | 210000 B         | 220000 B         | 220000 B         | 230000 B         | 230000 B             | 230000 B         |                   |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U               | 5000 U           |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 200000 B         | 210000 B        | 160000 B        | 210000          | 220000 B        | 250000 B        | 230000 B         | 250000 B          | 210000 B         | 220000 B         | 220000 B         | 230000 B         | 230000 B             | 230000 B         |                   |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 93000            | 93000           | 110000 B        | 100000 B        | 100000          | 100000 B        | 110000 B         | 130000 B          | 130000           | 130000 B         | 120000 B         | 120000           | 110000               | 120000 B         |                   |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 1200             | 1300 B          | 1800            | 1500            | 1800            | 1800 B          | 1700 J           | 1600 B            | 1700 B           | 1800 H B         | 1900 B           | 1800             | 1700 B               | 1800 B           |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 28000            | 26000           | 32000 B         | 29000           | 27000           | 29000 B         | 29000            | 33000 B           | 30000            | 30000            | 31000            | 30000            | 28000                | 29000            |                   |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  | 10 U              | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  | 10 U              | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                  |                   |                  |                  |                  |                  |                      |                  |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-98D<br>6/17/09 | MW-98D<br>6/15/10 | MW-98D<br>10/29/14 | MW-98I<br>5/23/08 | MW-98I<br>9/12/08 | MW-98I<br>6/18/09 | MW-98I<br>6/16/10 | MW-98I<br>9/18/13 | MW-98I<br>9/18/13 | MW-98I<br>1/31/14 | MW-98I<br>2/24/14 | MW-98I<br>3/18/14 | MW-98I<br>5/8/14 | MW-98I<br>6/4/14 | MW-98I<br>6/30/14 | MW-98I<br>8/6/14 | MW-98I<br>9/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                   | 41000 B            |                   |                   |                   |                   |                   |                   | 310000 B          | 320000 B          | 300000 B          | 300000 B         | 230000 B         | 280000            | 270000 B         | 270000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                   | 5000 U             |                   |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U            | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   |                   | 41000 B            |                   |                   |                   |                   | 290000 B          |                   | 310000 B          | 320000 B          | 300000 B          | 300000 B         | 230000 B         | 280000            | 270000 B         | 270000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   |                   | 1100 B             |                   |                   |                   |                   | 38000             |                   | 33000             | 39000             | 36000             | 26000            | 33000 B          | 22000             | 34000            | 38000 B          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   |                   | 57 J B             |                   |                   |                   |                   | 2700              |                   | 3000              | 2600              | 3400              | 3700             | 3000             | 2700 H B          | 2100             | 1900             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                   | 12000 B           |                    |                   |                   |                   |                   | 40000             |                   | 47000             | 44000             | 46000             | 44000            | 51000 B          | 43000             | 37000            | 40000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   | R                 |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2.4 B J           |                   |                    | 4 B               | 4.1 B J           | 4.3 B J           |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U              |                   |                    | 19 J              | 11 J              | 7.3 B             |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   | 116000            |                    |                   |                   |                   | 138000            |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   | 1500 B            |                   |                   |                  |                  |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-98I<br>10/7/14 | MW-98I<br>10/29/14 | MW-98I<br>10/29/14 | MW-98I<br>1/15/15 | MW-98I Dup<br>1/15/15 | MW-98I<br>2/25/15 | MW-98I<br>3/26/15 | MW-98I<br>4/20/15 | MW-98I<br>5/18/15 | MW-98S<br>5/22/08 | MW-98S<br>9/8/08 | MW-98S<br>6/17/09 | MW-98S<br>6/16/10 | MW-98S<br>9/18/13 | MW-98S<br>9/18/13 | MW-98S<br>1/31/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|--------------------|--------------------|-------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 280000 B          | 290000 B           |                    | 290000 B          | 260000 B              | 290000 B          | 280000 B          | 320000 B          | 300000 B          |                   |                  |                   |                   |                   |                   | 320000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U             |                    | 5000 U            | 5000 U                | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                  |                   |                   |                   |                   | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 280000 B          | 290000 B           |                    | 290000 B          | 260000 B              | 290000 B          | 280000 B          | 320000 B          | 300000 B          |                   |                  |                   |                   | 290000 B          |                   | 320000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 47000 B           | 36000 B            |                    | 58000             | 58000                 | 69000 B           | 56000 B           | 57000             | 54000             |                   |                  |                   |                   | 43000             |                   | 34000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 1800              | 1300 B             |                    | 2000 B            | 2000 B                | 2400              | 3400 B            | 3400              | 2800 B            |                   |                  |                   |                   | 2800              |                   | 3000              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 40000 B           | 28000 B            |                    | 40000             | 40000                 | 40000             | 44000 B           | 46000             | 42000             |                   |                  |                   |                   | 42000             |                   | 51000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   | 3000 U             |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   | R                 |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                    |                    |                   |                       |                   |                   |                   |                   | 4.3 J             | 10 U             | 3.1 B J           |                   |                   |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                    |                    |                   |                       |                   |                   |                   |                   | 20 J              | 8.1 B            | 9.9 B             |                   |                   |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   | 12000 J            |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   | 0.50 U             |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   | 0.50 U             |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                   | 0.14 J             |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   | 508000            |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                    | 1100               |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   | 1600 B            |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                    |                    |                   |                       |                   |                   |                   |                   |                   |                  |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-98S<br>2/24/14 | MW-98S<br>3/18/14 | MW-98S<br>5/7/14 | MW-98S Dup<br>5/7/14 | MW-98S<br>6/4/14 | MW-98S<br>6/30/14 | MW-98S<br>8/6/14 | MW-98S<br>9/8/14 | MW-98S<br>10/7/14 | MW-98S<br>10/29/14 | MW-98S<br>10/29/14 | MW-98S<br>1/15/15 | MW-98S<br>2/25/15 | MW-98S<br>3/26/15 | MW-98S Dup<br>3/26/15 | MW-98S<br>4/20/15 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|----------------------|------------------|-------------------|------------------|------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-----------------------|-------------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 360000 B          | 310000 B          | 310000 B         | 310000 B             | 490000 B         | 280000            | 270000 B         | 280000 B         | 300000 B          | 300000 B           |                    | 330000 B          | 280000 B          | 290000 B          | 330000 B              | 300000 B          |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U            | 5000 U           | 5000 U               | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U            | 5000 U             |                    | 5000 U            | 5000 U            | 5000 U            | 5000 U                | 5000 U            |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 360000 B          | 310000 B          | 310000 B         | 310000 B             | 490000 B         | 280000            | 270000 B         | 280000 B         | 300000 B          | 300000 B           |                    | 330000 B          | 280000 B          | 290000 B          | 330000 B              | 300000 B          |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 44000             | 37000             | 30000            | 25000                | 32000 B          | 34000 B           | 35000            | 45000 B          | 54000 B           | 65000 B            |                    | 67000             | 81000 B           | 57000             | 54000 B               | 57000             |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2900              | 3700              | 4700 B           | 4400 B               | 2900             | 2400              | 1900             | 1700             | 1700              | 2100 B             |                    | 2000 B            | 2400              | 4200 B            | 4100 B                | 3700              |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Sulfate                          |                            |                          |                           |                          |                      | 48000             | 51000             | 52000            | 47000                | 54000 B          | 53000             | 37000            | 43000 B          | 41000 B           | 46000 B            |                    | 41000             | 41000             | 48000             | 47000 B               | 48000             |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   | 3000 U             |                    |                   |                   |                   |                       |                   |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   | 14000 J            |                    |                   |                   |                   |                       |                   |  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   | 0.50 U             |                    |                   |                   |                   |                       |                   |  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   | 0.50 U             |                    |                   |                   |                   |                       |                   |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   | 0.085 J            |                    |                   |                   |                   |                       |                   |  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    | 1100               |                   |                   |                   |                       |                   |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                       |                   |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-98S Dup<br>4/20/15 | MW-98S<br>5/18/15 | MW-99D<br>5/22/08 | MW-99D<br>9/18/08 | MW-99D<br>6/22/10 | MW-99D<br>9/16/13 | MW-99D<br>9/16/13 | MW-99D<br>1/27/14 | MW-99D<br>2/24/14 | MW-99D<br>3/18/14 | MW-99D<br>5/6/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 310000 B              | 290000 B          |                   |                   |                   |                   |                   | 250000 B          | 270000 B          | 230000 B          | 230000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U                | 5000 U            |                   |                   |                   |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 310000 B              | 290000 B          |                   |                   |                   | 230000 B          |                   | 250000 B          | 270000 B          | 230000 B          | 230000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 57000                 | 60000             |                   |                   |                   | 80000             |                   | 51000             | 50000             | 51000             | 45000            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3600                  | 3000 B            |                   |                   |                   | 3500              |                   | 2100              | 1800              | 2100              | 2000 B           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 48000                 | 44000             |                   |                   |                   |                   | 40000             | 23000             | 21000             | 25000             | 24000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   | R                 |                   |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                       |                   | 10 UJ             | 10 U              |                   |                   |                   |                   |                   |                   |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                       |                   | 10 U              | 10 U              |                   |                   |                   |                   |                   |                   |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   | 446000            |                   |                   |                   |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   | 940 J B           |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-99D<br>6/4/14 | MW-99D<br>6/30/14 | MW-99D<br>8/5/14 | MW-99D<br>9/8/14 | MW-99D<br>10/7/14 | MW-99D<br>10/30/14 | MW-99D<br>10/30/14 | MW-99D<br>1/14/15 | MW-99D<br>2/25/15 | MW-99D<br>3/24/15 | MW-99D<br>4/21/15 | MW-99D<br>5/19/15 | MW-99S<br>5/22/08 | MW-99S<br>9/24/08 | MW-99S<br>6/22/10 | MW-99S<br>9/16/13 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|------------------|------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 190000 B         | 230000            | 240000 B         | 230000 B         | 230000 B          | 250000 B           |                    | 260000 B          | 240000 B          | 260000 B          | 250000 B          | 220000 B          |                   |                   |                   |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U            | 5000 U             |                    | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                   |                   |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 190000 B         | 230000            | 240000 B         | 230000 B         | 230000 B          | 250000 B           |                    | 260000 B          | 240000 B          | 260000 B          | 250000 B          | 220000 B          |                   |                   |                   | 240000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 54000 B          | 52000 B           | 46000            | 50000 B          | 49000 B           | 53000 B            |                    | 48000             | 49000 B           | 58000 B F1        | 55000             | 77000             |                   |                   |                   | 83000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2500             | 2400              | 1700             | 1600             | 1500              | 2000 B             |                    | 2000 B            | 2200              | 2300 B            | 2200 B            | 2500 B            |                   |                   |                   | 3600              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 31000 B          | 31000             | 17000            | 20000 B          | 19000 B           | 24000 B            |                    | 24000             | 25000             | 26000             | 26000             | 30000             |                   |                   |                   | 42000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   | 3000 U             |                    |                   |                   |                   |                   |                   |                   |                   |                   | R                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   | 10 UJ             | 10 U              |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   | 10 U              | 10 U              |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   | 6100               |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   | 0.50 U             |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   | 0.50 U             |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   | 0.12 J B           |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   | 498000            |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    | 710 J              |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                  |                  |                   |                    |                    |                   |                   |                   |                   |                   |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-99S<br>9/16/13 | MW-99S<br>1/31/14 | MW-99S<br>2/24/14 | MW-99S<br>3/18/14 | MW-99S<br>5/6/14 | MW-99S Dup<br>5/6/14 | MW-99S<br>6/4/14 | MW-99S<br>6/30/14 | MW-99S Dup<br>6/30/14 | MW-99S<br>8/5/14 | MW-99S<br>9/8/14 | MW-99S<br>10/7/14 | MW-99S Dup<br>10/7/14 | MW-99S<br>10/30/14 | MW-99S Dup<br>10/30/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|------------------|----------------------|------------------|-------------------|-----------------------|------------------|------------------|-------------------|-----------------------|--------------------|------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   | 250000 B          | 270000 B          | 250000 B          | 250000 B         | 250000 B             | 220000 B         | 250000            | 250000                | 250000 B         | 240000 B         | 250000 B          | 260000 B              | 260000 B           | 260000 B               |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U               | 5000 U           | 5000 U            | 5000 U                | 5000 U           | 5000 U           | 5000 U            | 5000 U                | 5000 U             | 5000 U                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                   | 250000 B          | 270000 B          | 250000 B          | 250000 B         | 250000 B             | 220000 B         | 250000            | 250000                | 250000 B         | 240000 B         | 250000 B          | 260000 B              | 260000 B           | 260000 B               |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Chloride                         |                            |                          | 250000                    |                          |                      |                   | 55000             | 54000             | 54000             | 48000            | 47000                | 54000 B          | 33000             | 51000 B               | 49000            | 47000 B          | 49000 B           | 49000 B               | 55000 B            | 51000 B                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                   | 2500              | 2300              | 2200              | 2100             | 2100 B               | 2400             | 2000 B            | 2100                  | 2000             | 1800             | 1600              | 1700                  | 1900 B             | 1800 B                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Sulfate                          |                            |                          |                           |                          |                      |                   | 26000             | 25000             | 25000             | 23000            | 24000                | 30000 B          | 21000             | 27000                 | 21000            | 21000 B          | 21000 B           | 21000 B               | 24000 B            | 22000 B                |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       | 3000 U             | 3000 U                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       | 6300               | 6900                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       | 0.50 U             | 0.50 U                 |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       | 0.50 U             | 0.50 U                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       | 0.10 J B           | 0.099 J B              |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      | 810 J B           |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                  |                      |                  |                   |                       |                  |                  |                   |                       |                    |                        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-99S<br>10/30/14 | MW-99S Dup<br>10/30/14 | MW-99S<br>1/15/15 | MW-99S<br>2/25/15 | MW-99S<br>3/24/15 | MW-99S<br>4/20/15 | MW-99S<br>5/18/15 | MW-100D<br>5/22/08 | MW-100D<br>9/22/08 | MW-100D<br>6/24/10 | MW-100D<br>9/17/13 | MW-100D<br>9/17/13 | MW-100D<br>1/30/14 | MW-100D<br>2/24/14 | MW-100D<br>3/17/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                        | 300000 B          | 250000 B          | 270000 B          | 270000 B          | 260000 B          |                    |                    |                    |                    |                    | 250000 B           | 260000 B           | 220000 B           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                        | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                    |                    |                    |                    |                    | 5000 U             | 5000 U             | 5000 U             |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    |                        | 300000 B          | 250000 B          | 270000 B          | 270000 B          | 260000 B          |                    |                    |                    | 230000 B           |                    | 250000 B           | 260000 B           | 220000 B           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    |                        | 57000             | 71000 B           | 87000 B           | 100000            | 100000            |                    |                    |                    | 77000              |                    | 96000 B            | 110000             | 120000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    |                        | 1900 B            | 2500              | 2800 B            | 3000              | 3000 B            |                    |                    |                    | 3600               |                    | 3400               | 3600               | 3800               |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                    |                        | 25000             | 27000             | 29000             | 31000             | 32000             |                    |                    |                    |                    |                    | 44000              | 38000              | 39000              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    | R                  |                    |                    |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                        |                   |                   |                   |                   |                   | 10 UJ              | 2.2 B J            |                    |                    |                    |                    |                    |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                        |                   |                   |                   |                   |                   | 10 U               | 10 U               |                    |                    |                    |                    |                    |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      | 510 J              | 620 J                  |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    | 780 J B            |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                        |                   |                   |                   |                   |                   |                    |                    |                    |                    |                    |                    |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-100D<br>4/21/14 | MW-100D Dup<br>4/21/14 | MW-100D<br>5/6/14 | MW-100D<br>5/19/14 | MW-100D Dup<br>5/19/14 | MW-100D<br>6/3/14 | MW-100D<br>7/1/14 | MW-100D<br>7/14/14 | MW-100D<br>8/5/14 | MW-100D<br>9/8/14 | MW-100D Dup<br>10/6/14 | MW-100D<br>10/28/14 | MW-100D<br>10/28/14 |       |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|------------------------|-------------------|--------------------|------------------------|-------------------|-------------------|--------------------|-------------------|-------------------|------------------------|---------------------|---------------------|-------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 230000 B           | 230000 B               | 230000 B          | 230000 B           | 230000 B               | 230000            | 230000            | 220000 B           | 230000 B          | 250000 B          | 240000 B               | 230000 B            | 230000 B            |       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U                 | 5000 U            | 5000 U             | 5000 U                 | 5000 U            | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U                 | 5000 U              | 5000 U              |       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 230000 B           | 230000 B               | 230000 B          | 230000 B           | 230000 B               | 230000 B          | 230000            | 220000 B           | 230000 B          | 250000 B          | 240000 B               | 230000 B            | 230000 B            |       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Bromide                          |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Chloride                         |                            |                          | 250000                    |                          |                      | 110000 B           | 110000 B               | 120000 B          | 110000             | 110000                 | 120000 B          | 110000 B          | 110000 B           | 120000            | 110000 B          | 110000 B               | 110000 B            | 110000              |       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3900               | 3800                   | 4200 B            | 3900 B             | 3800 B                 | 4200              | 4400 B            | 4000               | 4000              | 3700              | 3600                   | 3500                | 3400                |       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Sulfate                          |                            |                          |                           |                          |                      | 38000              | 37000                  | 40000             | 36000 B            | 36000 B                | 40000 B           | 35000             | 38000 B            | 36000             | 37000 B           | 36000 B                | 36000 B             | 37000               |       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     | 3000 U              |       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     | 5400                |       |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Ethane                           |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     | 0.50 U              |       |
| Ethene                           |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     | 0.50 U              |       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Methane                          |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     | 0.41 J              |       |
| pH                               |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Silica                           |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     | 18000 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                        |                   |                    |                        |                   |                   |                    |                   |                   |                        |                     |                     |       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-100D<br>1/14/15 | MW-100D<br>2/25/15 | MW-100D<br>3/25/15 | MW-100D<br>4/21/15 | MW-100D<br>5/19/15 | MW-100I<br>5/21/08 | MW-100I<br>9/24/08 | MW-100I<br>6/24/10 | MW-100I<br>1/30/14 | MW-100I<br>2/24/14 | MW-100I<br>3/17/14 | MW-100I<br>4/21/14 | MW-100I<br>5/6/14 | MW-100I<br>5/19/14 | MW-100I<br>6/3/14 | MW-100I<br>7/1/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 240000 B           | 250000 B           | 220000 B           | 260000 B           | 240000 B           |                    |                    |                    | 240000 B           | 240000 B           | 220000 B           | 230000 B           | 230000 B          | 230000 B           | 220000            | 230000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             |                    |                    |                    | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U            | 5000 U             | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000 B           | 250000 B           | 220000 B           | 260000 B           | 240000 B           |                    |                    |                    | 240000 B           | 240000 B           | 220000 B           | 230000 B           | 230000 B          | 230000 B           | 220000 B          | 230000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 110000             | 120000 B           | 130000 B           | 140000             | 130000             |                    |                    |                    | 88000 B            | 110000             | 130000             | 130000 B           | 130000 B          | 130000             | 130000 B          | 120000 B          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3600 B             | 3800               | 3800 B             | 3700 B             | 3600 B             |                    |                    |                    | 4100               | 4000               | 4100               | 4200               | 4300 B            | 4200 B             | 4400              | 4600 B            |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      | 34000              | 35000              | 35000              | 36000              | 35000              |                    |                    |                    | 37000              | 36000              | 39000              | 39000              | 40000             | 38000              | 41000 B           | 35000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                    |                    |                    |                    | 10 U               | 10 U               |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                    |                    |                    |                    | 1.8 B J            | 10 U               |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    | 435000             |                    |                    |                    |                   |                    |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-100I<br>7/14/14 | MW-100I<br>8/5/14 | MW-100I Dup<br>8/5/14 | MW-100I<br>9/8/14 | MW-100I Dup<br>9/8/14 | MW-100I<br>10/6/14 | MW-100I<br>10/28/14 | MW-100I Dup<br>10/28/14 | MW-100I<br>1/14/15 | MW-100I<br>2/25/15 | MW-100I<br>3/24/15 | MW-100I Dup<br>3/24/15 | MW-100I<br>4/21/15 | MW-100I<br>5/19/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|-----------------------|-------------------|-----------------------|--------------------|---------------------|-------------------------|--------------------|--------------------|--------------------|------------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B           | 220000 B          | 230000 B              | 210000 B          | 240000 B              | 250000 B           | 220000 B            | 230000 B                | 240000 B           | 240000 B           | 290000 B           | 260000 B               | 220000 B           | 210000 B           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U            | 5000 U                | 5000 U            | 5000 U                | 5000 U             | 5000 U              | 5000 U                  | 5000 U             | 5000 U             | 5000 U             | 5000 U                 | 5000 U             | 5000 U             |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B           | 220000 B          | 230000 B              | 210000 B          | 240000 B              | 250000 B           | 220000 B            | 230000 B                | 240000 B           | 240000 B           | 290000 B           | 260000 B               | 220000 B           | 210000 B           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      | 120000 B           | 120000            | 120000                | 110000 B          | 110000 B              | 110000 B           | 110000              | 110000                  | 110000             | 110000 B           | 110000 B           | 120000 B               | 130000             | 130000             |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 4400               | 4200              | 4200                  | 3800              | 4000                  | 3800               | 3400                | 3600                    | 3600 B             | 3800               | 3600 B             | 3900 B                 | 3700 B             | 3900 B             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      | 41000 B            | 36000             | 36000                 | 37000 B           | 39000 B               | 39000 B            | 35000               | 36000                   | 34000              | 35000              | 33000              | 37000                  | 36000              | 37000              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                       |                   |                       |                    |                     |                         |                    |                    |                    |                        |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-100S<br>5/22/08 | MW-100S Dup<br>5/22/08 | MW-100S<br>9/24/08 | MW-100S<br>6/22/10 | MW-100S<br>9/17/13 | MW-100S<br>9/17/13 | MW-100S<br>1/30/14 | MW-100S<br>2/24/14 | MW-100S<br>3/17/14 | MW-100S<br>4/21/14 | MW-100S<br>5/6/14 | MW-100S<br>5/19/14 | MW-100S<br>6/3/14 | MW-100S<br>7/1/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    | 240000 B           | 250000 B           | 220000 B           | 230000 B           | 230000 B          | 230000 B           | 210000            | 230000            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U            | 5000 U             | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    | 220000 B           | 240000 B           | 250000 B           | 220000 B           | 230000 B           | 230000 B          | 230000 B           | 210000 B          | 230000            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    |                        |                    |                    | 76000              |                    | 89000 B            | 92000              | 110000             | 110000 B           | 71000             | 110000             | 120000 B          | 110000 B          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    |                        |                    |                    | 3600               |                    | 4000               | 3700               | 4000               | 3900               | 3800 B            | 3700 B             | 4200              | 4500 B            |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                    |                        |                    |                    | 35000              |                    | 37000              | 34000              | 37000              | 36000              | 32000             | 34000              | 39000 B           | 33000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                        |                    |                    | R                  |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 UJ              | 10 UJ                  | 10 U               |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U               | 10 U                   | 10 U               |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    | 470000             |                    |                    |                    |                    |                   |                    |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    | 680 J B            |                    |                    |                    |                   |                    |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                    |                    |                    |                    |                    |                   |                    |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-100S Dup<br>7/1/14 | MW-100S<br>7/14/14 | MW-100S<br>8/5/14 | MW-100S<br>9/8/14 | MW-100S<br>10/6/14 | MW-100S<br>10/28/14 | MW-100S<br>10/28/14 | MW-100S<br>1/14/15 | MW-100S<br>2/25/15 | MW-100S<br>3/24/15 | MW-100S<br>4/21/15 | MW-100S<br>5/19/15 | MW-101D<br>5/21/08 | MW-101D<br>9/12/08 | MW-101D<br>6/16/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|--------------------|-------------------|-------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B              | 220000 B           | 230000 B          | 220000 B          | 240000 B           | 240000 B            |                     | 250000 B           | 260000 B           | 260000 B           | 250000 B           | 250000 B           |                    |                    |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U                | 5000 U             | 5000 U            | 5000 U            | 5000 U             | 5000 U              |                     | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             |                    |                    |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B              | 220000 B           | 230000 B          | 220000 B          | 240000 B           | 240000 B            |                     | 250000 B           | 260000 B           | 260000 B           | 250000 B           | 250000 B           |                    |                    |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      | 71000                 | 120000 B           | 120000            | 100000 B          | 100000 B           | 100000              |                     | 100000             | 110000 B           | 100000 B           | 120000             | 130000             |                    |                    |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 4300 B                | 4100               | 4100              | 3800              | 3600               | 3500                |                     | 3900 B             | 3800               | 3600 B             | 3600 B             | 3700 B             |                    |                    |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      | 32000                 | 39000 B            | 34000             | 36000 B           | 36000 B            | 35000               |                     | 34000              | 35000              | 34000              | 35000              | 36000              |                    |                    |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    | 3000 U              |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    | 10 U               | 1.6 B J            |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    | 10 U               | 10 U               |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    | 5300                |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    | 0.50 U              |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    | 0.50 U              |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    | 0.38 J              |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    | 411000             |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     | 1100                |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                    |                   |                   |                    |                     |                     |                    |                    |                    |                    |                    |                    |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-101S<br>5/22/08 | MW-101S<br>9/10/08 | MW-101S<br>6/22/10 | MW-102D<br>4/29/08 | MW-102D<br>9/19/08 | MW-102D<br>6/23/10 | MW-102S<br>4/30/08 | MW-102S<br>9/17/08 | MW-102S<br>6/21/10 | MW-103D<br>4/30/08 | MW-103D<br>9/19/08 | MW-103D<br>6/18/10 | MW-103S<br>4/30/08 | MW-103S<br>9/19/08 | MW-103S<br>6/24/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 UJ              | 10 U               |                    | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    | 1.8 BJ             | 10 U               |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    | 10 U               | 10 U               |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                    | 577000             |                    |                    | 151000             |                    |                    | 146000             |                    |                    | 196000             |                    |                    | 166000             |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-104<br>5/5/08 | MW-104<br>10/9/08 | MW-104<br>6/23/10 | MW-105<br>5/5/08 | MW-105<br>10/2/08 | MW-106<br>4/29/08 | MW-106<br>9/29/08 | MW-106<br>6/18/10 | MW-106 Dup<br>6/18/10 | MW-107<br>5/6/08 | MW-107<br>9/10/08 | MW-107<br>6/18/10 | MW-107<br>1/20/14 | MW-107<br>2/19/14 | MW-107<br>3/20/14 | MW-107<br>5/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-----------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 250000 B          | 260000 B          | 240000 B          | 200000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 250000 B          | 260000 B          | 240000 B          | 200000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 190000            | 220000            | 220000            | 160000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 7000              | 7700              | 7800              | 4300 B           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   | 47000             | 53000             | 56000             | 40000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             | 1.7 B             |                   | 10 U             | 10 U              | 2 B J             | 10 U              |                   |                       | 10 U             | 10 U              |                   |                   |                   |                   |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 9.7 B J          | 10 U              |                   | 2.3 B            | 10 U              | 10 U              | 10 U              |                   |                       | 10 U             | 10 U              |                   |                   |                   |                   |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   | 124000            |                  |                   |                   |                   | 760000            | 890000                |                  |                   | 1170000           |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                   |                  |                   |                   |                   |                   |                       |                  |                   |                   |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-107<br>6/2/14 | MW-107<br>7/2/14 | MW-107<br>8/8/14 | MW-107<br>9/10/14 | MW-107<br>10/7/14 | MW-107<br>10/30/14 | MW-107<br>1/13/15 | MW-108D<br>4/23/08 | MW-108D<br>9/5/08 | MW-108S<br>4/23/08 | MW-108S<br>9/5/08 | MW-108S<br>7/1/10 | MW-109D<br>5/20/08 | MW-109D<br>9/17/08 | MW-109S<br>5/20/08 | MW-109S<br>9/16/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|-------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 190000           | 310000           | 300000 B         | 370000 B          | 310000 B          | 380000 B           | 280000 B          |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U            | 5000 U             | 5000 U            |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 190000 B         | 310000           | 300000 B         | 370000 B          | 310000 B          | 380000 B           | 280000 B          |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      | 120000           | 160000 B         | 140000           | 150000 B          | 160000 B          | 200000 B           | 180000            |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3800             | 4500             | 3400             | 3400              | 3400              | 5100 B             | 5500 B            |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      | 35000            | 59000            | 43000            | 55000 B           | 46000 B           | 76000 B            | 40000             |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                  |                   |                   |                    |                   | 10 U               | 10 U              | 10 U               | 10 U              |                   | 1.8 B J            | 2.3 B J            | 10 U               | 10 U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                  |                   |                   |                    |                   | 10 U               | 10 U              | 2.7 B              | 10 U              |                   | 2.8 B J            | 10 U               | 2.6 B J            | 1.7 B              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   | 130000             |                    |                    |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                   |                   |                    |                   |                    |                   |                    |                   |                   |                    |                    |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-109S<br>6/21/10 | MW-110<br>5/14/08 | MW-110<br>9/22/08 | MW-110<br>6/21/10 | MW-110<br>9/12/13 | MW-110<br>9/12/13 | MW-110<br>10/22/14 | MW-110<br>10/22/14 | MW-111<br>5/16/08 | MW-111<br>9/15/08 | MW-111<br>6/29/09 | MW-111<br>6/30/10 | MW-112<br>5/1/08 | MW-112<br>9/3/08 | MW-112<br>6/23/10 | MW-113<br>10/25/07 | MW-113<br>5/15/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|--------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 180000 B           |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 5000 U             |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                    |                   |                   |                   | 170000 B          |                   | 180000 B           |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Bromide                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                    |                   |                   |                   | 30000 B           |                   | 35000              |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                    |                   |                   |                   | 5800              |                   | 5900               |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                    |                   |                   |                   | 5000              |                   | 5600               |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                   |                   | 3000 U            |                   | 3000 U             |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                   | 10 U              | 2.8 B J           |                   |                   |                    |                    | 10 U              | 10 U              | 1.8 B J           | 10 U              | 10 U             | 10 U             |                   | 10 U               | 10 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                   | 3.2 B             | 10 U              |                   |                   |                    |                    | 1.7 B J           | 3.6 B J           | 10 U              | 10 U              | 10 U             | 10 U             |                   | 10 U               | 10 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 5100               |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 0.50 U             |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 0.50 U             |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 0.50 U             |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| pH                               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Silica                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 460000             |                   |                   |                   | 311000            |                   |                    |                    |                   |                   | 174000            |                   |                  |                  | 1580000           |                    |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   | 540 J B            |                    | 590 J             |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                    |                    |                   |                   |                   |                   |                  |                  |                   |                    |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-113<br>9/3/08 | MW-113<br>7/6/10 | MW-113<br>9/6/13 | MW-113<br>10/16/14 | MW-113<br>9/29/15 | MW-114<br>5/23/08 | MW-114<br>10/3/08 | MW-114<br>7/2/10 | MW-114<br>3/20/14 | MW-114<br>5/7/14 | MW-114<br>6/5/14 | MW-114<br>7/2/14 | MW-114<br>8/7/14 | MW-114 Dup<br>8/7/14 | MW-114<br>9/10/14 | MW-114<br>10/9/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|--------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|------------------|------------------|------------------|----------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  | 23               | 36                 | 23                |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 160000 B          | 160000 B         | 130000 B         | 180000           | 92000            | 91000 B              | 230000            | 230000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U               | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 160000 B          | 160000 B         | 130000 B         | 180000           | 92000            | 91000 B              | 230000            | 230000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 200000            | 190000           | 220000 B         | 170000 B         | 200000           | 200000               | 150000 B          | 140000 B          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                    |                   |                   |                   |                  | 250               | 180 B            | 78 J             | 330              | 68 J             | 92 J                 | 650               | 530               |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 46000             | 45000            | 41000 B          | 61000            | 16000            | 15000                | 76000 B           | 76000             |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U             |                  |                  |                    |                   |                   |                   |                  | 10 U              | 10 U             |                  |                  |                  |                      |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U             |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  | 372000           |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  | 625000            |                  |                  |                  |                  |                      |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                    |                   |                   |                   |                  |                   |                  |                  |                  |                  |                      |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-114<br>10/30/14 | MW-114<br>1/16/15 | MW-114<br>2/26/15 | MW-114<br>3/27/15 | MW-114<br>4/23/15 | MW-114<br>5/21/15 | MW-115<br>4/30/08 | MW-115<br>9/3/08 | MW-115<br>7/1/10 | MW-116<br>5/21/08 | MW-116<br>9/3/08 | MW-116<br>7/1/10 | MW-117<br>2/26/09 | MW-117<br>6/23/09 | MW-117<br>6/23/10 | MW-126<br>7/6/12 | MW-127<br>7/6/12 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   | 1.9 U            | 24               |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 150000 B           | 240000 B          | 210000 B          | 200000 B          | 220000 B          | 260000 B          |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 150000 B           | 240000 B          | 210000 B          | 200000 B          | 220000 B          | 260000 B          |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 220000 B           | 160000            | 160000 B          | 160000 B          | 150000 B          | 150000            |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 100 U              | 610 B             | 340               | 610 B             | 540               | 690 B             |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 43000 B            | 77000             | 73000             | 69000             | 75000             | 77000             |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                   |                   |                   |                   |                   | 5.5 B             | 10 U             |                  | 10 U              | 10 U             |                  | 4.6 B             | 26 J              |                   | 2 U              | 2 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                   |                   |                   |                   |                   | 10 U              | 10 U             |                  | 3.6 BJ            | 10 U             |                  | 110               | 31                |                   | 1.6 J            | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  | 784000           |                   |                  | 1110000          |                   |                   |                   | 1330000          |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                   |                   |                   |                   |                   |                   |                  |                  |                   |                  |                  |                   |                   |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-127<br>9/4/13 | MW-127<br>1/21/14 | MW-127<br>2/18/14 | MW-127<br>3/21/14 | MW-127<br>5/8/14 | MW-127<br>6/5/14 | MW-127<br>6/30/14 | MW-127<br>8/7/14 | MW-127<br>9/10/14 | MW-127<br>10/9/14 | MW-127<br>10/14/14 | MW-127 Dup<br>10/31/14 | MW-127<br>1/16/15 | MW-127<br>2/27/15 | MW-127<br>3/27/15 | MW-127<br>4/23/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|-------------------|-------------------|--------------------|------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 | 11               |                   |                   |                   |                  |                  |                   |                  |                   |                   | 10                 |                        |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  | 300000 B          | 270000 B          | 260000 B          | 260000 B         | 270000 B         | 260000            | 250000           | 290000            | 290000 B          | 280000 B           | 270000 B               | 330000 B          | 270000 B          | 270000 B          | 280000 B          |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U            | 5000 U           | 5000 U            | 5000 U            | 5000 U             | 5000 U                 | 5000 U            | 5000 U            | 5000 U            | 5000 U            |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  | 300000 B          | 270000 B          | 260000 B          | 260000 B         | 270000 B         | 260000            | 250000           | 290000            | 290000 B          | 280000 B           | 270000 B               | 330000 B          | 270000 B          | 270000 B          | 280000 B          |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  | 110000            | 110000            | 120000            | 150000 B         | 130000 B         | 65000             | 88000            | 89000 B           | 76000 B           | 77000              | 84000                  | 100000            | 100000 B          | 110000 B          | 130000 B          |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  | 2200              | 2300              | 2400              | 2600 B           | 2700             | 2800 B            | 2200             | 2300              | 2000              | 2300               | 2100                   | 2300 B            | 2400 H B          | 2300 B            | 2000              |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          |                      |                  | 9900              | 7600              | 9000              | 12000            | 9700 B           | 7300              | 6100             | 7600 B            | 7200              | 7300               | 7500                   | 7700              | 7600              | 7600              | 5600              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Methane                          |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| pH                               |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                   |                   |                   |                  |                  |                   |                  |                   |                   |                    |                        |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-127<br>5/21/15 | MW-127<br>9/29/15 | MW-128<br>7/6/12 | MW-128 Dup<br>7/6/12 | MW-129<br>7/6/12 | MW-129<br>9/6/13 | MW-129<br>10/14/14 | MW-129<br>9/18/15 | MW-130<br>7/2/12 | MW-130<br>9/9/13 | MW-130<br>10/14/14 | MW-131<br>7/5/12 | MW-131<br>9/6/13 | MW-131<br>10/15/14 | MW-131<br>9/18/15 | MW-132<br>7/5/12 | MW-132<br>9/6/13 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|----------------------|------------------|------------------|--------------------|-------------------|------------------|------------------|--------------------|------------------|------------------|--------------------|-------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   | 6.8               | 8.8              |                      | 5.3              | 3.9 J            | 2.7                | 2.1               | 13               | 15               | 12                 | 14               | 14               | 9.9                | 6.8               | 60               | 11               |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 260000 B          |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 260000 B          |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 110000            |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2100 B            |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 7700              |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   | 2 U              | 2 U                  | 2 U              |                  |                    |                   | 2 U              |                  |                    | 2 U              |                  |                    |                   | 2 U              |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   | 10 U             | 10 U                 | 10 U             |                  |                    |                   | 1.9 J            |                  |                    | 1.8 J            |                  |                    |                   | 10 U             |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                      |                  |                  |                    |                   |                  |                  |                    |                  |                  |                    |                   |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-132<br>3/19/14 | MW-132<br>5/7/14 | MW-132<br>6/4/14 | MW-132<br>7/2/14 | MW-132<br>8/7/14 | MW-132<br>9/10/14 | MW-132<br>10/9/14 | MW-132<br>10/15/14 | MW-132 Dup<br>10/31/14 | MW-132<br>1/16/15 | MW-132<br>2/27/15 | MW-132<br>3/27/15 | MW-132<br>4/23/15 | MW-132<br>5/21/15 | MW-132<br>9/18/15 | MW-133<br>7/5/12 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|--------------------|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                  |                  |                   |                   |                    | 23                     |                   |                   |                   |                   |                   | 6.6               | 0.95 J           |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 160000 B          | 120000 B         | 120000 B         | 130000           | 150000           | 140000 B          | 190000 B          | 180000 B           | 150000 B               | 160000 B          | 160000 B          | 140000 B          | 140000 B          | 170000 B          |                   |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U            | 5000 U             | 5000 U                 | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U            |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 160000 B          | 120000 B         | 120000 B         | 130000           | 150000           | 140000 B          | 190000 B          | 180000 B           | 150000 B               | 160000 B          | 160000 B          | 140000 B          | 140000 B          | 170000 B          |                   |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 18000             | 7500             | 12000 B          | 11000 B          | 13000            | 14000 B           | 16000 B           | 16000              | 15000                  | 11000             | 11000 B           | 9000 B            | 12000 B           | 14000             |                   |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3900              | 4900 B           | 5200             | 4900             | 4600             | 4400              | 4000              | 4100               | 4100                   | 4800 B            | 4600 H B          | 4900 B            | 4200              | 4000 B            |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 5500              | 2200             | 4300 B           | 3300             | 3600             | 4400 B            | 5000              | 4800               | 5000                   | 3700              | 3900              | 3200              | 2800              | 4600              |                   |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   | 2 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                   |                   |                    |                        |                   |                   |                   |                   |                   |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-133<br>9/6/13 | MW-133<br>10/15/14 | MW-134<br>7/5/12 | MW-134<br>9/6/13 | MW-134<br>10/15/14 | MW-134<br>9/18/15 | MW-135<br>7/2/12 | MW-135<br>9/9/13 | MW-135<br>10/16/14 | MW-138A<br>11/13/12 | MW-141A<br>1/7/13 | MW-141A<br>9/5/13 | MW-141A<br>9/5/13 | MW-141A<br>10/21/14 | MW-141A<br>10/21/14 | MW-142D<br>11/12/12 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|--------------------|------------------|------------------|--------------------|-------------------|------------------|------------------|--------------------|---------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 | 0.75 J           | 1.4 J              | 57               | 19               | 94                 | 6.2               | 10               | 8.3              | 22                 | 2.1 U               |                   |                   |                   |                     |                     |                     |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 130000 B            |                     |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 5000 U              |                     |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   | 110000 B          |                   | 130000 B            |                     |                     |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Bromide                          |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   | 12000             |                   | 9100                |                     |                     |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   | 680               |                   | 560                 |                     |                     |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   | 11000             |                   | 11000               |                     |                     |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   | 3000 U            |                   | 3000 U              |                     |                     |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                    |                  |                  |                    |                   | 2 U              |                  |                    |                     | 2 U               |                   |                   |                     |                     | 2 U                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                    |                  |                  |                    |                   | 10 U             |                  |                    |                     | 10 U              |                   |                   |                     |                     | 10 U                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 1000 U              |                     |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Ethane                           |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 0.5 U               |                     |
| Ethene                           |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 0.5 U               |                     |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Methane                          |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     | 14 B                |                     |
| pH                               |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Silica                           |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   | 620 J B           |                     | 570 J               |                     |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                    |                  |                  |                    |                   |                  |                  |                    |                     |                   |                   |                   |                     |                     |                     |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-142S<br>11/12/12 | MW-142S Dup<br>11/12/12 | MW-143D<br>11/13/12 | MW-143S<br>11/13/12 | MW-144<br>11/20/12 | MW-145A<br>2/5/13 | MW-145A<br>1/30/14 | MW-145A<br>2/24/14 | MW-145A<br>3/17/14 | MW-145A<br>5/7/14 | MW-145A<br>6/4/14 | MW-145A<br>6/30/14 | MW-145A<br>8/5/14 | MW-145A<br>9/8/14 | MW-145A<br>10/6/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|---------------------|-------------------------|---------------------|---------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|-------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   | 270000 B           | 260000 B           | 260000 B           | 270000 B          | 250000 B          | 250000             | 240000 B          | 240000 B          | 240000 B           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   | 5000 U             | 5000 U             | 5000 U             | 5000 U            | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U             |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   | 270000 B           | 260000 B           | 260000 B           | 270000 B          | 250000 B          | 250000             | 240000 B          | 240000 B          | 240000 B           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Bromide                          |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      |                     |                         |                     |                     |                    |                   | 76000 B            | 120000             | 80000              | 71000             | 84000 B           | 87000 B            | 100000            | 100000 B          | 110000 B           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                     |                         |                     |                     |                    |                   | 2900               | 3400               | 3100               | 3000 B            | 2900              | 2800               | 3400              | 3400              | 3400               |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Sulfate                          |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   | 37000              | 37000              | 42000              | 38000             | 42000 B           | 39000              | 33000             | 35000 B           | 37000 B            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2 U                 | 2 U                     | 2 U                 | 2 U                 | 2 U                | 2 U               |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U                | 10 U                    | 10 U                | 10 U                | 67 B               | 1 U               |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Ethane                           |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Ethene                           |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Methane                          |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| pH                               |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Silica                           |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                     |                         |                     |                     |                    |                   |                    |                    |                    |                   |                   |                    |                   |                   |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-145A<br>10/30/14 | MW-145A<br>1/15/15 | MW-145A<br>2/25/15 | MW-145A<br>3/24/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|---------------------|--------------------|--------------------|--------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                     |                    |                    |                    |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 240000 B            | 280000 B           | 250000 B           | 240000 B           |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U              | 5000 U             | 5000 U             | 5000 U             |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000 B            | 280000 B           | 250000 B           | 240000 B           |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Bromide                          |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Chloride                         |                            |                          | 250000                    |                          |                      | 110000 B            | 110000             | 120000 B           | 150000 B           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                     |                    |                    |                    |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3500 B              | 3000 B             | 3700               | 3600 B             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Sulfate                          |                            |                          |                           |                          |                      | 38000 B             | 34000              | 35000              | 34000              |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                     |                    |                    |                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                     |                    |                    |                    |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Carbonate                        |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Ethane                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Ethene                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Methane                          |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| pH                               |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Silica                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Specific Conductance             |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Turbidity                        |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                     |                    |                    |                    |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                    |                    |                    |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                    |                    |                    |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                     |                    |                    |                    |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                     |                    |                    |                    |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                     |                    |                    |                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-145A<br>4/20/15 | MW-145A<br>5/18/15 | MW-145A Dup<br>5/18/15 | MW-146<br>11/27/12 | MW-146<br>9/17/13 | MW-146<br>9/17/13 | MW-146<br>10/14/14 | MW-146<br>10/14/14 | MW-147A<br>11/20/12 | MW-147A<br>5/7/13 | MW-147A<br>9/17/13 | MW-147A Dup<br>9/17/13 | MW-147A<br>9/17/13 | MW-147A Dup<br>9/17/13 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|--------------------|------------------------|--------------------|-------------------|-------------------|--------------------|--------------------|---------------------|-------------------|--------------------|------------------------|--------------------|------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B           | 250000 B           | 240000 B               |                    |                   |                   | 270000 B           |                    |                     |                   |                    |                        |                    |                        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U             | 5000 U                 |                    |                   |                   | 5000 U             |                    |                     |                   |                    |                        |                    |                        |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B           | 250000 B           | 240000 B               |                    | 233000            |                   | 270000 B           |                    |                     |                   | 230000 B           | 220000 B               |                    |                        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Bromide                          |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     | 500 U             |                    |                        |                    |                        |
| Chloride                         |                            |                          | 250000                    |                          |                      | 150000             | 140000             | 130000                 |                    | 79000             |                   | 100000             |                    | 75000               | 76000             | 76000              |                        |                    |                        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3800               | 3600 B             | 3500 B                 |                    | 3900              |                   | 4700               |                    |                     |                   | 3100               | 3100                   |                    |                        |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Sulfate                          |                            |                          |                           |                          |                      | 38000              | 37000              | 35000                  |                    | 37000             |                   | 40000              |                    |                     |                   | 36000              | 35000                  |                    |                        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                    |                        |                    | R                 |                   | 3000 UJ            |                    |                     |                   | R                  | R                      |                    |                        |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                    |                        |                    | 2 U               |                   |                    |                    | 2 U                 |                   |                    |                        |                    |                        |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                    |                        |                    | 10 U              |                   |                    |                    | 10 U                |                   |                    |                        |                    |                        |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   | 13000              |                    |                     |                   |                    |                        |                    |                        |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Ethane                           |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   | 0.50 U             |                    |                     |                   |                    |                        |                    |                        |
| Ethene                           |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   | 0.50 U             |                    |                     |                   |                    |                        |                    |                        |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Methane                          |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   | 0.15 J             |                    |                     |                   |                    |                        |                    |                        |
| pH                               |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Silica                           |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                    |                        |                    | 890 J B           |                   | 1000               |                    |                     |                   |                    | 810 J B                | 890 J B            |                        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                    |                        |                    |                   |                   |                    |                    |                     |                   |                    |                        |                    |                        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-147A<br>1/23/14 | MW-147A Dup<br>1/23/14 | MW-147A<br>2/24/14 | MW-147A<br>3/19/14 | MW-147A<br>4/21/14 | MW-147A<br>5/6/14 | MW-147A<br>5/19/14 | MW-147A<br>6/3/14 | MW-147A<br>7/1/14 | MW-147A<br>7/14/14 | MW-147A<br>8/5/14 | MW-147A<br>9/8/14 | MW-147A<br>10/6/14 | MW-147A<br>10/28/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------|------------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|-------------------|--------------------|---------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 220000 B           | 230000 B               | 250000 B           | 230000 B           | 230000 B           | 220000 B          | 220000 B           | 58000             | 220000            | 220000 B           | 220000 B          | 270000 B          | 250000 B           | 210000 B            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U             | 5000 U                 | 5000 U             | 5000 U             | 5000 U             | 5000 U            | 5000 U             | 12000             | 5000 U            | 5000 U             | 5000 U            | 5000 U            | 5000 U             | 5000 U              |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 220000 B           | 230000 B               | 250000 B           | 230000 B           | 230000 B           | 220000 B          | 220000 B           | 70000 B           | 220000            | 220000 B           | 220000 B          | 270000 B          | 250000 B           | 210000 B            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Bromide                          |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Chloride                         |                            |                          | 250000                    |                          |                      | 97000              | 97000                  | 140000             | 140000             | 140000 B           | 160000 B          | 130000             | 130000 B          | 120000 B          | 120000 B           | 120000            | 110000 B          | 110000 B           | 120000              |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2600               | 2700                   | 3200               | 3900               | 4200               | 5100 B            | 4100 B             | 4400              | 4600 B            | 4100               | 4100              | 3700              | 3500               | 3600                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Sulfate                          |                            |                          |                           |                          |                      | 34000              | 34000                  | 36000              | 37000              | 38000              | 40000             | 36000 B            | 41000 B           | 36000             | 39000 B            | 36000             | 36000 B           | 35000 B            | 37000               |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    | 3000 U              |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    | 6800                |
| Carbonate                        |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Ethane                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    | 0.50 U              |
| Ethene                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    | 0.50 U              |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Methane                          |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    | 0.27 J              |
| pH                               |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Silica                           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Specific Conductance             |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Temperature (C)                  |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Turbidity                        |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                    |                        |                    |                    |                    |                   |                    |                   |                   |                    |                   |                   |                    |                     |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-147A<br>10/28/14 | MW-147A<br>1/14/15 | MW-147A<br>2/25/15 | MW-147A<br>3/25/15 | MW-147A<br>4/21/15 | MW-147A<br>5/19/15 | MW-150<br>10/21/13 | MW-151<br>10/21/13 | MW-155<br>10/8/13 | MW-156<br>10/9/13 | MW-B101<br>6/16/05 | WPLSS-15<br>6/28/91 | WPLSS-2<br>6/28/91 | WPLSS-7<br>6/28/91 | WPLSS-8<br>6/28/91 | CW-1<br>5/27/88 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                     |                    |                    |                    |                    |                    |                    |                    |                   | 0.48 J            | 1.9 U              |                     |                    |                    |                    |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                     | 220000 B           | 230000 B           | 210000 B           | 210000 B           | 220000 B           |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                     | 5000 U             | 5000 U             | 5000 U             | 5000 U             | 5000 U             |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                     | 220000 B           | 230000 B           | 210000 B           | 210000 B           | 220000 B           |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Bromide                          |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                     | 550000             | 130000 B           | 160000 B           | 150000             | 140000             |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                     | 18000 B            | 6000               | 3900 B             | 3800 B             | 3600 B             |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                     | 170000             | 35000              | 34000              | 36000              | 36000              |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                     |                    |                    |                    |                    |                    | 2 U                | 2 U                | 2 U               | 2 U               | 10 U               | 13                  | U                  | U                  | U                  |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                     |                    |                    |                    |                    |                    | 10 U               | 10 U               | 15                | 3.5 J             | 10 U               | 22                  | U                  | U                  | U                  |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Ethane                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Ethene                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Methane                          |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| pH                               |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Silica                           |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      | 1200                |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                     |                    |                    |                    |                    |                    |                    |                    |                   |                   |                    |                     |                    |                    |                    |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-1<br>11/14/90 | CW-1<br>11/15/90 | CW-1<br>12/5/90 | CW-1<br>1/14/91 | CW-1<br>2/7/91 | CW-1<br>3/6/91 | CW-1<br>4/24/91 | CW-1<br>1/30/92 | CW-1<br>6/11/92 | CW-1<br>9/24/92 | CW-1<br>12/18/92 | CW-1<br>6/21/93 | CW-1<br>8/30/93 | CW-1<br>12/1/93 | CW-1<br>1/26/94 | CW-1<br>4/5/94 | CW-1<br>7/11/94 | CW-1<br>5/6/08 | CW-1<br>7/7/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Bromide                          |                            |                          |                           |                          |                      | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             | 2 U             | 2 U             |                  | 2 U             | 2 U             |                 | 2 U             |                |                 |                |                |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                 |                 |                |                |                 | 5 U             | 5 U             |                 |                  | 10              | 5 U             | 10 U            |                 |                | 5 U             | 10 U           |                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                 |                 |                |                |                 | 5 U             | 5 U             |                 |                  | 5 U             | 5 U             | 5 U             |                 |                | 5 U             | 10 U           |                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 | 6.98 SU         |                |                 |                |                |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                | 129000         |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-1A<br>6/9/88 | CW-1A<br>11/13/90 | CW-1A<br>11/15/90 | CW-1A<br>12/5/90 | CW-1A<br>1/14/91 | CW-1A<br>2/7/91 | CW-1A<br>3/6/91 | CW-1A<br>4/24/91 | CW-1A<br>1/30/92 | CW-1A<br>6/11/92 | CW-1A<br>9/24/92 | CW-1A<br>12/18/92 | CW-1A<br>6/21/93 | CW-1A<br>8/30/93 | CW-1A<br>12/1/93 | CW-1A<br>1/26/94 | CW-1A<br>4/5/94 | CW-1A<br>7/11/94 | CW-1A<br>5/7/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-------------------|-------------------|------------------|------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             | 2 U               | 2 U               | 2 U              | 2 U              | 2 U             | 2 U             | 2 U              | 2 U              | 2 U              | 2 U              |                   |                  | 2 U              | 2 U              |                  |                 | 2 U              |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                   |                   |                  |                  |                 |                 |                  | 5 U              | 5 U              |                  |                   | 10 U             | 5 U              | 10 U             |                  |                 | 5 U              | 10 U            |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                   |                   |                  |                  |                 |                 |                  | 5 U              | 5 U              |                  |                   | 5 U              | 5 U              | 5 U              |                  |                 | 5 U              | 10 U            |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                   |                   |                  |                  |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-1A<br>7/7/10 | CW-2<br>6/2/88 | CW-2<br>11/14/90 | CW-2<br>11/15/90 | CW-2<br>12/5/90 | CW-2<br>1/14/91 | CW-2<br>2/7/91 | CW-2<br>3/6/91 | CW-2<br>4/24/91 | CW-2<br>1/30/92 | CW-2<br>6/11/92 | CW-2<br>9/24/92 | CW-2<br>12/18/92 | CW-2<br>6/21/93 | CW-2<br>8/30/93 | CW-2<br>12/1/93 | CW-2<br>1/26/94 | CW-2<br>4/5/94 | CW-2<br>7/11/94 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Bromide                          |                            |                          |                           |                          |                      |                 | 2 U            | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             | 2 U             | 2 U             | 2 U              | 1 U             | 2 U             | 2 U             |                 | 2 U            |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                |                  |                  |                 |                 |                |                |                 |                 | 5 U             | 5 U             |                  |                 | 10 U            | 5 U             | 10 U            |                | 5 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                |                  |                  |                 |                 |                |                |                 | 5 U             | 5 U             |                 |                  | 5 U             | 5 U             | 5 U             |                 |                | 5 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 | 6.76 SU         |                |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 183000          |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-2<br>5/13/08 | CW-2<br>7/7/10 | CW-3<br>5/27/87 | CW-3<br>6/3/88 | CW-3<br>11/13/90 | CW-3<br>11/15/90 | CW-3<br>12/5/90 | CW-3<br>1/14/91 | CW-3<br>2/7/91 | CW-3<br>3/6/91 | CW-3<br>4/24/91 | CW-3<br>1/30/92 | CW-3<br>6/11/92 | CW-3<br>9/24/92 | CW-3<br>12/18/92 | CW-3<br>6/21/93 | CW-3<br>8/30/93 | CW-3<br>12/1/93 | CW-3<br>1/26/94 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|----------------|-----------------|----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      |                 |                | 2 U             | 2 U            | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             | 2 U             | 2 U             | 2 U              | 2 U             | 2 U             | 2 U             |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 2.8 B J         |                | 5 U             |                |                  |                  |                 |                 |                |                |                 | 5 U             | 5 U             |                 |                  | 10 U            | 5 U             | 10 U            |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U            |                | 5 U             |                |                  |                  |                 |                 |                |                |                 | 5 U             | 5 U             |                 |                  | 5 U             | 5 U             | 8 U             |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 | 6.58 SU         |
| Silica                           |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                | 154000          |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                |                 |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-3<br>4/5/94 | CW-3<br>7/11/94 | CW-3<br>5/6/08 | CW-3<br>7/7/10 | CW-3 Dup<br>7/7/10 | CW-4<br>6/3/88 | CW-4<br>11/13/90 | CW-4<br>11/15/90 | CW-4<br>12/5/90 | CW-4<br>1/14/91 | CW-4<br>2/7/91 | CW-4<br>3/6/91 | CW-4<br>4/24/91 | CW-4<br>1/30/92 | CW-4<br>6/11/92 | CW-4<br>9/24/92 | CW-4<br>12/18/92 | CW-4<br>6/21/93 | CW-4<br>8/30/93 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------|-----------------|----------------|----------------|--------------------|----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U            |                 |                |                |                    | 2 U            | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             | 2 U             | 2 U             | 2 U              | 2 U             | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                | 5 U             | 10 U           |                |                    |                |                  |                  |                 |                 |                |                |                 | 5 U             |                 |                 |                  | 10 U            | 5 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                | 5 U             | 10 U           |                |                    |                |                  |                  |                 |                 |                |                | 5 U             | 5 U             |                 |                 |                  | 5 U             | 5 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                |                 |                |                | 170000             | 172000         |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                |                 |                |                |                    |                |                  |                  |                 |                 |                |                |                 |                 |                 |                 |                  |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-4<br>12/1/93 | CW-4<br>1/26/94 | CW-4<br>4/5/94 | CW-4<br>7/11/94 | CW-4<br>5/6/08 | CW-4<br>7/7/10 | CW-4<br>9/16/13 | CW-4<br>9/16/13 | CW-4<br>10/14/14 | CW-4<br>10/14/14 | CW-5<br>6/10/88 | CW-5<br>11/13/90 | CW-5<br>11/15/90 | CW-5<br>12/5/90 | CW-5<br>1/14/91 | CW-5<br>2/7/91 | CW-5<br>3/6/91 | CW-5<br>4/24/91 | CW-5<br>1/30/92 |  |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|-----------------|-----------------|------------------|------------------|-----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|--|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 110000 B         |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 5000 U           |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                | 86000 B         | 110000 B        |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             |                 | 2 U            |                 |                |                |                 |                 |                  | 2 U              | 2 U             | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             |  |
| Chloride                         |                            | 250000                   |                           |                          |                      |                 |                 |                |                 |                |                | 29000           | 28000           |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                |                 |                |                | 100 U           | 100 U           |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                | 29000           | 29000           |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                | R               | 3000 UJ         |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U            |                 |                | 5 U             | 10 U           |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 | 5 U             |  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 8 U             |                 |                | 5 U             | 10 U           |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 | 5 U             |  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 14000            |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 0.50 U           |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 0.50 U           |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 | 1.6              |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| pH                               |                            |                          |                           |                          |                      | 6.94 SU         |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                | 196000          |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 | 190 J B         | 320 J            |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                |                 |                |                |                 |                 |                  |                  |                 |                  |                  |                 |                 |                |                |                 |                 |  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-5<br>6/11/92 | CW-5<br>9/24/92 | CW-5<br>12/18/92 | CW-5<br>6/21/93 | CW-5<br>8/30/93 | CW-5<br>12/1/93 | CW-5<br>1/26/94 | CW-5<br>4/5/94 | CW-5<br>7/11/94 | CW-5<br>5/6/08 | CW-5<br>7/7/10 | CW-6<br>8/2/89 | CW-6<br>11/13/90 | CW-6<br>11/15/90 | CW-6<br>12/5/90 | CW-6<br>1/14/91 | CW-6<br>2/7/91 | CW-6<br>3/6/91 | CW-6<br>4/24/91 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             | 2 U             | 2 U              | 1 U             | 2 U             | 2 U             |                 | 2 U            |                 |                |                | 2 U            | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U             |                 |                  |                 | 10 U            | 5 U             | 10 U            |                |                 |                | 5 U            | 10 U           |                  |                  |                 |                 |                |                |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U             |                 |                  |                 | 5 U             | 5 U             | 5 U             |                |                 |                | 5 U            | 10 U           |                  |                  |                 |                 |                |                |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 | 6.83 SU         |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                | 255000         |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-6<br>1/30/92 | CW-6<br>6/11/92 | CW-6<br>9/24/92 | CW-6<br>8/30/93 | CW-6<br>12/1/93 | CW-6<br>1/26/94 | CW-6<br>4/5/94 | CW-6<br>7/11/94 | CW-6<br>5/6/08 | CW-6<br>7/7/10 | CW-7<br>8/1/89 | CW-7<br>11/14/90 | CW-7<br>11/15/90 | CW-7<br>12/5/90 | CW-7<br>1/14/91 | CW-7<br>2/7/91 | CW-7<br>3/6/91 | CW-7<br>4/24/91 | CW-7<br>1/30/92 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|----------------|------------------|------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             | 2 U             | 2 U             | 2 U             | 2 U             |                 | 1 U            |                 |                |                | 2 U            | 2 U              | 2 U              | 2 U             | 2 U             | 2 U            | 2 U            | 2 U             | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U             | 5 U             |                 | 5 U             | 10 U            |                 |                | 5 U             | 10 U           |                |                |                  |                  |                 |                 |                |                |                 | 5 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U             | 5 U             |                 | 5 U             | 5 U             |                 |                | 5 U             | 10 U           |                |                |                  |                  |                 |                 |                |                |                 | 5 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 | 6.94 SU         |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 | 213000          |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                 |                 |                |                 |                |                |                |                  |                  |                 |                 |                |                |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-7<br>6/11/92 | CW-7<br>9/24/92 | CW-7<br>12/18/92 | CW-7<br>6/21/93 | CW-7<br>8/30/93 | CW-7<br>12/1/93 | CW-7<br>1/26/94 | CW-7<br>4/5/94 | CW-7<br>7/11/94 | CW-7<br>5/6/08 | CW-7<br>9/11/08 | CW-7<br>7/7/10 | CW-7A<br>8/3/89 | CW-7A<br>11/13/90 | CW-7A<br>11/15/90 | CW-7A<br>12/5/90 | CW-7A<br>1/14/91 | CW-7A<br>2/7/91 | CW-7A<br>3/6/91 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|-------------------|-------------------|------------------|------------------|-----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Bromide                          |                            |                          |                           |                          |                      | 2 U             | 2 U             | 2 U              |                 | 2 U             | 2 U             |                 | 2 U            |                 |                |                 |                | 10 U            | 2 U               | 2 U               | 2 U              | 2 U              | 2 U             | 2 U             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U             |                 |                  |                 | 10 U            | 5 U             | 10 U            |                |                 | 5 U            | 10 U            | 1.6 BJ         | 50 U            |                   |                   |                  |                  |                 |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U             |                 |                  |                 | 5 U             | 5 U             | 5 U             |                |                 | 5 U            | 10 U            | 10 U           | 5 U             |                   |                   |                  |                  |                 |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 | 6.94 SU         |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  | 81000            |                 |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                  |                 |                 |                 |                 |                |                 |                |                 |                |                 |                   |                   |                  |                  |                 |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-7A<br>4/24/91 | CW-7A<br>1/30/92 | CW-7A<br>6/11/92 | CW-7A<br>9/24/92 | CW-7A<br>12/18/92 | CW-7A<br>6/21/93 | CW-7A<br>8/30/93 | CW-7A<br>12/1/93 | CW-7A<br>1/26/94 | CW-7A<br>4/5/94 | CW-7A<br>7/11/94 | CW-7A<br>5/6/08 | CW-7A<br>7/7/10 | CW-8<br>1/11/90 | CW-8<br>11/12/90 | CW-8<br>11/15/90 | CW-8<br>12/5/90 | CW-8<br>1/14/91 | CW-8<br>2/7/91 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Bromide                          |                            |                          |                           |                          |                      | 2 U              | 2 U              | 2 U              | 10 U             | 10 U              |                  | 10 U             | 10 U             |                  | 10 U            |                  |                 |                 |                 | 50 U             | 50 U             | 10 U            | 20 U            | 20 U           |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  | 5 U              | 5 U              |                  |                   | 10 U             | 5 U              | 10 U             |                  |                 |                  | 5 U             | 10 U            |                 |                  |                  |                 |                 |                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  | 5 U              | 5 U              |                  |                   | 5 U              | 5 U              | 5 U              |                  |                 |                  | 5 U             | 10 U            |                 |                  |                  |                 |                 |                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  | U                |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  | 5.33 SU          |                  |                 |                  |                 |                 | 7.53 SU         |                  |                  |                 |                 |                |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  | U                |                  |                 |                  |                 |                 | 151000          |                  |                  |                 |                 |                |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                   |                  |                  |                  |                  |                 |                  |                 |                 |                 |                  |                  |                 |                 |                |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-8<br>3/6/91 | CW-8<br>4/24/91 | CW-8<br>1/29/92 | CW-8<br>6/11/92 | CW-8<br>9/24/92 | CW-8<br>12/18/92 | CW-8<br>6/21/93 | CW-8<br>8/30/93 | CW-8<br>12/1/93 | CW-8<br>1/26/94 | CW-8<br>4/5/94 | CW-8<br>7/11/94 | CW-8<br>6/20/06 | CW-8<br>5/6/08 | CW-8<br>9/11/08 | CW-8<br>9/16/13 | CW-8<br>9/16/13 | CW-8<br>10/30/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 180000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 208000          |                |                 | 200000 B        |                 | 180000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Bromide                          |                            |                          |                           |                          |                      | 10 U           | 10 U            | 5 U             | 10 U            | 10 U            | 5 U              |                 | 2 U             | 2 U             | 10 U            | 10 U           |                 |                 |                |                 |                 |                 |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 88000           |                |                 | 190000          |                 | 160000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 6000            |                |                 | 3900            |                 | 4200 B           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 500 U           |                |                 |                 |                 |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 14900           |                |                 | 20000           |                 | 21000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 | R               |                 | 3000 U           |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                |                 | 5 U             | 5 U             |                 |                  | 10 U            | 5 U             | 10 U            | 10 U            |                | 5 U             |                 |                | 10 U            | 1.8 B J         |                 |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                |                 | 5 U             | 5 U             |                 |                  | 5 U             | 5 U             | 5 U             | 5 U             |                | 5 U             |                 |                | 10 U            | 10 U            |                 |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 4200             |
| Carbonate                        |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Ethane                           |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 2.4              |
| Ethene                           |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 0.50 U           |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 292000          |                |                 |                 |                 |                  |
| Methane                          |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 3.2 B            |
| pH                               |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 7.4 SU          |                |                 |                 |                 |                  |
| Silica                           |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 688 umhos/cm    |                |                 |                 |                 |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 414000          |                |                 |                 |                 |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 | 630 J B          |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 |                 |                |                 |                 |                 |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                |                 |                 |                 |                 |                  |                 |                 |                 |                 |                |                 | 490 B           |                |                 |                 |                 |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-8<br>10/30/14 | CW-9<br>2/19/90 | CW-9<br>2/28/90 | CW-9<br>5/24/94 | CW-9<br>7/11/94 | CW-9<br>4/16/04 | CW-9<br>5/6/08 | CW-9<br>9/11/08 | CW-9<br>7/7/10 | CW-9<br>1/23/14 | CW-9<br>2/21/14 | CW-9<br>3/18/14 | CW-9<br>5/7/14 | CW-9<br>6/5/14 | CW-9<br>7/2/14 | CW-9<br>8/5/14 | CW-9<br>9/10/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                | 230000 B        | 220000 B        | 220000 B        | 220000 B       | 180000 B       | 220000         | 230000 B       | 290000 B        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                | 5000 U          | 5000 U          | 5000 U          | 5000 U         | 5000 U         | 5000 U         | 5000 U         | 5000 U          |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                  |                 | 200000          |                 | 180000          |                 |                |                 |                | 230000 B        | 220000 B        | 220000 B        | 220000 B       | 180000 B       | 220000         | 230000 B       | 290000 B        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Bromide                          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                | 240000          | 200000 B        | 250000          | 240000         | 280000 B       | 260000 B       | 190000         | 230000 B        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                  |                 |                 |                 |                 |                 |                |                 |                | 6800            | 7300 E          | 8000            | 6600           | 8500           | 7300           | 4700           | 6200            |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                | 40000           | 36000           | 42000           | 37000          | 43000 B        | 40000          | 33000          | 36000 B         |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  | 50 U            | 5 U             | 5 U             | 5 U             |                 | 10 U           | 2.6 B J         |                |                 |                 |                 |                |                |                |                |                 |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  | 5 U             | 5 U             | 5 U             | 5 U             | 5 U             | 4.9 B          | 10 U            |                |                 |                 |                 |                |                |                |                |                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                 | 7600            |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Ethane                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Ethene                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                 | 250000          |                 | 240000          |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Methane                          |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| pH                               |                            |                          |                           |                          |                      |                  |                 |                 | 7.34 SU         | 7.54 SU         |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Silica                           |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                 |                 | 310000          | 320000          |                 |                |                 | 461000         |                 |                 |                 |                |                |                |                |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                 |                 | 5000 U          | 5000 U          |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                 |                 |                 | 0.3 N.T.U.      |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      | 850 J            |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                 |                 |                 |                 |                 | 0.5 U          |                 |                |                 |                 |                 |                |                |                |                |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                 |                 |                 |                 |                 | 0.5 U          | 0.19            |                |                 |                 |                 |                |                |                |                |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                 |                 |                 |                 |                 |                |                 |                |                 |                 |                 |                |                |                |                |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-9<br>10/8/14 | CW-9<br>10/31/14 | CW-9<br>1/20/15 | CW-9<br>2/25/15 | CW-9<br>3/25/15 | CW-9<br>4/22/15 | CW-9<br>5/20/15 | CW-10<br>4/12/90 | CW-10<br>4/25/90 | CW-10<br>6/24/93 | CW-10<br>7/14/94 | CW-10<br>10/25/95 | CW-11<br>4/12/90 | CW-11<br>4/18/90 | CW-11<br>6/25/93 | CW-11<br>7/14/94 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 240000 B        | 270000 B         | 260000 B        | 230000 B        | 210000 B        | 230000 B        | 210000 B        |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U          | 5000 U           | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U          |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 240000 B        | 270000 B         | 260000 B        | 230000 B        | 210000 B        | 230000 B        | 210000 B        |                  | 53000            |                  |                  | 48000             |                  | 120000           |                  |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 1 U              | 1 U              |                  |                  | 500 U             | 2 U              | 2 U              |                  |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      | 240000          | 250000           | 240000          | 190000 B        | 190000 B        | 190000          | 180000 B        |                  |                  |                  |                  | 5000 U            |                  |                  |                  |                  |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  | 60                |                  |                  |                  |                  |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 6400                 | 5500            | 6600 B           | 4300            | 4000 B          | 3800            | 3600 B          |                 |                  |                  |                  |                  | 1600              |                  |                  |                  |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 36000 B         | 39000            | 37000           | 35000           | 30000           | 34000           | 32000           |                  |                  |                  |                  | 11000             |                  |                  |                  |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                  |                 |                 |                 |                 |                 | 5 U              | 5 U              | 10               | 5 U              | 5 U               | 5 U              | 5 U              | 10 U             | 5 U              |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                  |                 |                 |                 |                 |                 | 5 U              | 5 U              | 5 U              | 5 U              | 5 U               | 5 U              | 5 U              | 5 U              | 5 U              |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  | 5000 U            |                  |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 6800             |                  |                  |                  |                   |                  | 8800             |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 68000            | 87000            |                  |                  | 64000             |                  | 120000           |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 7.04 SU          |                  |                  |                  | 7.21 SU           |                  | 8.0 SU           |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  | 400               |                  |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  | 170 umhos/cm      |                  |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 88000            | 90000            |                  |                  | 93000             |                  | 160000           |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 | 5000 U           |                  |                  |                  |                   |                  | 5000 U           |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                  |                 |                 |                 |                 |                 |                  |                  |                  |                  |                   |                  |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-11<br>10/24/95 | CW-12<br>2/10/92 | CW-12<br>9/21/99 | CW-12<br>3/29/00 | CW-12<br>6/21/01 | CW-12<br>6/12/02 | CW-12A<br>9/21/99 | CW-12A<br>3/20/00 | CW-12A<br>3/30/00 | CW-13<br>1/21/92 | CW-13<br>2/10/92 | CW-13<br>5/24/94 | CW-13<br>7/11/94 | CW-13<br>5/7/08 | CW-13<br>9/11/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-----------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   |                  | 250000           | 220000           |                  |                  | 240000            |                   | 240000            |                  |                  |                  |                  |                 |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 110000            |                  | 250000           | 220000           |                  |                  | 240000            |                   | 240000            |                  |                  |                  | 270000           |                 |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Bromide                          |                            |                          |                           |                          |                      | 500 U             | 5 U              |                  |                  |                  |                  |                   |                   |                   | 20 U             | 5 U              |                  |                  |                 |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 14000             |                  | 30000            | 23000            |                  |                  | 28000             |                   | 25000             |                  |                  |                  |                  |                 |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  | 60                |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2500              |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 3500              |                  | 30000            | 14000            |                  |                  | 35000             |                   | 33000             |                  |                  |                  |                  |                 |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U               | 5 U              | 10 U             | 10 U             | 0 U              | 0 U              | 10 U              | 0 U               | 10 U              | 5 U              |                  | 5 U              | 5 U              | 1.7 B J         | 2.3 B J          |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U               | 5 U              | 10 U             | 10 U             | 0 U              | 0 U              | 10 U              | 0 U               | 10 U              | 50 U             |                  | 5 U              | 5 U              | 10 U            | 2.4 B            |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U            |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 130000            | 120000           | 260000           | 220000           |                  |                  | 270000            |                   | 260000            |                  |                  |                  | 670000           |                 |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| pH                               |                            |                          |                           |                          |                      | 7.84 SU           |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  | 7.54 SU          |                 |                  |
| Silica                           |                            |                          |                           |                          |                      | 400               |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Specific Conductance             |                            |                          |                           |                          |                      | 330 umhos/cm      |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 160000            | 130000           | 350000           | 290000           |                  |                  | 340000            |                   | 300000            |                  |                  |                  | 430000           |                 |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  | 5000 U           |                 |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  | 0.2 N.T.U.       |                 |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                   |                   |                   |                  |                  |                  |                  |                 |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Rejected result.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-13<br>7/7/10 | CW-13<br>9/16/13 | CW-13<br>9/16/13 | CW-13<br>1/23/14 | CW-13<br>2/21/14 | CW-13<br>3/18/14 | CW-13<br>5/7/14 | CW-13<br>6/5/14 | CW-13<br>7/2/14 | CW-13<br>8/5/14 | CW-13<br>9/10/14 | CW-13<br>10/8/14 | CW-13<br>10/30/14 | CW-13<br>10/30/14 | CW-13<br>1/20/15 | CW-13<br>2/25/15 | CW-13<br>3/25/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                  |                  | 250000 B         | 250000 B         | 240000 B         | 250000 B        | 220000 B        | 250000          | 260000 B        | 310000 B         | 290000 B         | 260000 B          |                   | 300000 B         | 260000 B         | 280000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                  |                  | 5000 U           | 5000 U           | 5000 U           | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U           | 5000 U           | 5000 U            |                   | 5000 U           | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                  | 250000 B         | 250000 B         | 250000 B         | 240000 B         | 250000 B        | 220000 B        | 250000          | 260000 B        | 310000 B         | 290000 B         | 260000 B          |                   | 300000 B         | 260000 B         | 280000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 | 120000           |                  | 230000           | 230000 B         | 290000           | 320000          | 370000 B        | 330000 B        | 280000          | 300000 B         | 320000 B         | 330000 B          |                   | 350000           | 170000 B         | 160000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 | 3000             |                  | 4700             | 6400 E           | 8200             | 8900            | 12000           | 10000 J         | 7800            | 8600             | 7500             | 7300 B            |                   | 8500 B           | 4300             | 3900 B           |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      |                 | 34000            |                  | 33000            | 32000            | 35000            | 32000           | 42000 B         | 40000           | 36000           | 38000 B          | 37000 B          | 39000 B           |                   | 37000            | 37000            | 36000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 | R                |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  | 3000 U            |                   |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  | 9800              |                   |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  | 1.8               |                   |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  | 0.5               |                   |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  | 5.4 B             |                   |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 | 656000           |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                  |                  | 830 J B          |                  |                  |                 |                 |                 |                 |                  |                  | 2500              |                   |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                  |                  |                  |                  |                  |                 |                 |                 |                 |                  |                  |                   |                   |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-13<br>4/22/15 | CW-13<br>5/20/15 | CW-14<br>1/16/92 | CW-14<br>2/10/92 | CW-14<br>6/15/94 | CW-14<br>7/11/94 | CW-14<br>5/20/08 | CW-14<br>9/30/08 | CW-15<br>9/1/99 | CW-15<br>4/10/00 | CW-15A<br>2/18/92 | CW-15A<br>2/20/92 | CW-15A<br>6/25/93 | CW-15A<br>5/24/94 | CW-15A<br>7/11/94 | CW-15A<br>5/6/08 | CW-15A<br>10/9/08 | CW-15A<br>7/7/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 270000 B         | 290000 B         |                  |                  |                  |                  |                  |                  |                 | 300000           |                   |                   |                   |                   |                   |                  |                   |                  |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U           | 5000 U           |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 270000 B         | 290000 B         |                  |                  |                  | 230000           |                  |                  | 290000          | 300000           |                   |                   |                   |                   | 320000            |                  |                   |                  |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Bromide                          |                            |                          |                           |                          |                      |                  |                  | 5 U              | 2 U              |                  |                  |                  |                  |                 |                  | 5000 U            | 5000 U            | 1000 U            |                   |                   |                  |                   |                  |
| Chloride                         |                            | 250000                   |                           |                          |                      | 150000           | 140000 B         |                  |                  |                  |                  |                  |                  | 37000           | 29000            |                   |                   |                   |                   |                   |                  |                   |                  |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3500             | 3200 B           |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 37000            | 35000            |                  |                  |                  |                  |                  |                  | 200000          | 210000           |                   |                   |                   |                   |                   |                  |                   |                  |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                  |                  |                  |                  | 5 U              | 5 U              | 1.8 B J          | 10 U             | 10 U            | 10 U             | 63                |                   | 20                | 30                | 20                | 10 U             | 6.5 B             |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                  |                  |                  |                  | 5 U              | 5 U              | 2.6 B J          | 10 U             | 10 U            | 10 U             | 12                |                   | 70                | 150               | 80                | 10 U             | 5.4 B             |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Ethane                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Ethene                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  | 330000           |                  | 500000          | 500000           |                   |                   |                   |                   | 580000            |                  |                   |                  |
| Methane                          |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| pH                               |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  | 7.32 SU          |                  |                  |                 |                  |                   |                   |                   |                   | 7.23 SU           |                  |                   |                  |
| Silica                           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  | 450000           |                  |                  | 740000          | 650000           |                   |                   |                   |                   | 900000            |                  |                   | 1040000          |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  | 720000           |                  |                  |                 |                  |                   |                   |                   |                   | 5000 U            |                  |                   |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  | 49 N.T.U.        |                  |                  |                 |                  |                   |                   |                   |                   | 2.1 N.T.U.        |                  |                   |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                   |                   |                   |                   |                   |                  |                   |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-15A<br>9/16/13 | CW-15A<br>9/16/13 | CW-15A<br>1/23/14 | CW-15A<br>2/21/14 | CW-15A<br>3/18/14 | CW-15A<br>5/7/14 | CW-15A<br>6/5/14 | CW-15A<br>7/2/14 | CW-15A<br>8/5/14 | CW-15A<br>9/10/14 | CW-15A<br>10/8/14 | CW-15A<br>10/30/14 | CW-15A<br>10/30/14 | CW-15A<br>1/20/15 | CW-15A<br>2/25/15 | CW-15A<br>3/25/15 | CW-15A<br>4/22/15 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 | 180               |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   | 390                |                    |                   |                   |                   |                   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                   | 170000 B          | 170000 B          | 150000 B          | 100000 B          | 110000 B         | 160000           | 170000 B         | 210000 B         | 200000 B          | 180000 B          |                    | 160000 B           | 270000 B          | 270000 B          | 250000 B          |                   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                   | 5000 U            | 5000 U            | 5000 U            | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U            | 5000 U            |                    | 5000 U             | 5000 U            | 5000 U            | 5000 U            |                   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 250000 B          | 170000 B          | 170000 B          | 150000 B          | 100000 B          | 110000 B         | 160000           | 170000 B         | 210000 B         | 200000 B          | 180000 B          |                    | 160000 B           | 270000 B          | 270000 B          | 250000 B          |                   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Chloride                         |                            | 250000                   |                           |                          |                      | 290000            | 95000             | 86000 B           | 91000             | 46000             | 77000 B          | 77000 B          | 64000            | 100000 B         | 120000 B          | 130000 B          |                    | 110000             | 300000 B          | 300000 B          | 270000            |                   |
| Fluoride                         | 4000                       | 4000                     |                           |                          | 800                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Nitrate As N                     | 10000                      | 10000                    | 10000                     | 32000                    | 4200                 |                   | 1100              | 1100              | 1200              | 890               | 1300             | 1100             | 930              | 1100             | 740               | 1000 B            |                    | 1300 B             | 3700              | 4900 B            | 4500              |                   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Sulfate                          |                            |                          |                           |                          | 140000               |                   | 38000             | 35000             | 38000             | 19000             | 31000 B          | 27000            | 23000            | 33000 B          | 38000 B           | 35000 B           |                    | 30000              | 150000            | 140000            | 140000            |                   |
| Sulfide, Total                   |                            |                          |                           |                          | R                    |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   | 3000 U            |                    |                    |                   |                   |                   |                   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   | 7200               |                    |                   |                   |                   |                   |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   | 0.74              |                   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   | 0.30 J            |                   |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   | 1.0 B             |                   |
| pH                               |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   | 3900 B            |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    | 2500               |                   |                   |                   |                   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                   |                   |                   |                  |                  |                  |                  |                   |                   |                    |                    |                   |                   |                   |                   |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-15A<br>5/20/15 | CW-15A<br>10/5/15 | CW-16<br>8/15/94 | CW-16<br>5/23/08 | CW-16<br>10/8/08 | CW-17<br>5/6/08 | CW-17<br>9/11/08 | CW-17<br>7/7/10 | CW-17<br>1/23/14 | CW-17<br>2/21/14 | CW-17<br>3/18/14 | CW-17<br>5/7/14 | CW-17<br>6/5/14 | CW-17<br>7/2/14 | CW-17<br>8/5/14 | CW-17<br>9/10/14 | CW-17<br>10/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|-------------------|------------------|------------------|------------------|-----------------|------------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   | 120 J             |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 200000 B          |                   |                  |                  |                  |                 |                  |                 | 220000 B         | 190000 B         | 190000 B         | 190000 B        | 190000 B        | 210000          | 240000 B        | 250000 B         | 300000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            |                   |                  |                  |                  |                 |                  |                 | 5000 U           | 5000 U           | 5000 U           | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 200000 B          |                   | 180000           |                  |                  |                 |                  |                 | 220000 B         | 190000 B         | 190000 B         | 190000 B        | 190000 B        | 210000          | 240000 B        | 250000 B         | 300000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 170000 B          |                   |                  |                  |                  |                 |                  |                 | 190000           | 220000 B         | 230000           | 180000          | 240000 B        | 200000 B        | 230000          | 190000 B         | 200000 B         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 3200 B            |                   |                  |                  |                  |                 |                  |                 | 3300             | 3300             | 3900             | 3600            | 4600            | 3900            | 4200            | 2900             | 2800             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 100000            |                   |                  |                  |                  |                 |                  |                 | 55000            | 52000            | 51000            | 45000           | 57000 B         | 53000           | 56000           | 64000 B          | 67000 B          |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                   |                  |                  |                  | 10 U            | 10 U             | 1.6 B           | 2.1 B J          |                  |                  |                 |                 |                 |                 |                  |                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                   |                  |                  |                  | 1.9 B J         | 10 U             | 10 U            | 2.5 B            |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                   | 5950             |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                   |                   | 7.53 SU          |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                   |                  |                  |                  |                 |                  |                 |                  |                  |                  |                 |                 |                 |                 |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-17<br>10/31/14 | CW-17<br>1/20/15 | CW-17<br>2/26/15 | CW-17<br>3/25/15 | CW-17<br>4/22/15 | CW-17<br>5/20/15 | CW-18<br>4/10/96 | CW-18<br>5/23/08 | CW-18<br>1/23/14 | CW-18<br>2/26/14 | CW-18<br>3/19/14 | CW-18<br>5/8/14 | CW-18<br>6/5/14 | CW-18 Dup<br>6/5/14 | CW-18<br>7/8/14 | CW-18 Dup<br>7/8/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|---------------------|-----------------|---------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 260000 B          | 250000 B         | 260000 B         | 230000 B         | 260000 B         | 230000 B         |                  |                  | 270000 B         | 250000 B         | 230000 B         | 220000 B        | 190000 B        | 210000 B            | 240000 B        | 240000 B            |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           |                  |                  | 5000 U           | 5000 U           | 5000 U           | 5000 U          | 5000 U          | 5000 U              | 5000 U          | 5000 U              |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 260000 B          | 250000 B         | 260000 B         | 230000 B         | 260000 B         | 230000 B         | 290000           |                  | 270000 B         | 250000 B         | 230000 B         | 220000 B        | 190000 B        | 210000 B            | 240000 B        | 240000 B            |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Bromide                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Chloride                         |                            |                          | 250000                    |                          |                      | 170000            | 190000           | 120000 B         | 100000 B         | 94000            | 100000 B         |                  |                  | 190000           | 220000           | 230000           | 220000 B        | 240000 B        | 240000 B            | 240000 B        | 240000 B            |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2400              | 3100 B           | 2300             | 2100 B           | 1900             | 2100 B           |                  |                  | 270              | 80 J             | 100 U            | 76 J B          | 150             | 150                 | 330             | 330                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Sulfate                          |                            |                          |                           |                          |                      | 61000             | 74000            | 41000            | 36000            | 34000            | 38000            |                  |                  | 220000           | 220000           | 220000           | 220000          | 280000 B        | 280000 B            | 320000 B        | 310000 B            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                   |                  |                  |                  |                  |                  |                  |                  | 10 U             |                  |                  |                 |                 |                     |                 |                     |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                   |                  |                  |                  |                  |                  |                  |                  | 2.3 B J          |                  |                  |                 |                 |                     |                 |                     |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Carbonate                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  | 7650             |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Ethane                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Ethene                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  | 380000           |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Methane                          |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| pH                               |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  | 7.15 SU          |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Silica                           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Specific Conductance             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Temperature (C)                  |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  | 730000           |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  | 38000            |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Turbidity                        |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                 |                 |                     |                 |                     |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-18<br>8/6/14 | CW-18<br>9/10/14 | CW-18<br>10/9/14 | CW-18<br>10/30/14 | CW-18<br>1/16/15 | CW-18<br>2/26/15 | CW-18 Dup<br>2/26/15 | CW-18<br>3/27/15 | CW-18<br>4/22/15 | CW-18<br>5/20/15 | CW-20<br>10/13/06 | CW-20<br>5/21/08 | CW-20<br>9/30/08 | CW-20<br>7/8/10 | CW-20<br>1/29/14 | CW-20<br>2/19/14 | CW-20<br>3/28/14 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|------------------|------------------|-------------------|------------------|------------------|----------------------|------------------|------------------|------------------|-------------------|------------------|------------------|-----------------|------------------|------------------|------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 260000 B        | 270000 B         | 280000 B         | 250000 B          | 260000 B         | 300000 B         | 280000 B             | 300000 B         | 300000 B         | 290000 B         |                   |                  |                  |                 | 180000 B         | 230000 B         | 200000 B         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U          | 5000 U           | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U               | 5000 U           | 5000 U           | 5000 U           |                   |                  |                  |                 | 5000 U           | 5000 U           | 5000 U           |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 260000 B        | 270000 B         | 280000 B         | 250000 B          | 260000 B         | 300000 B         | 280000 B             | 300000 B         | 300000 B         | 290000 B         |                   |                  |                  |                 | 180000 B         | 230000 B         | 200000 B         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Bromide                          |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Chloride                         |                            |                          | 250000                    |                          |                      | 210000          | 190000 B         | 190000 B         | 240000 B          | 230000           | 230000 B         | 230000 B             | 240000 B         | 230000           | 240000 B         |                   |                  |                  |                 | 94000            | 140000           | 160000           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 580             | 390              | 260              | 230 B             | 37 J B           | 65 J             | 51 J                 | 56 J B           | 120              | 85 J B           |                   |                  |                  |                 | 100 U            | 410              | 3600             |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Sulfate                          |                            |                          |                           |                          |                      | 290000          | 240000 B         | 210000           | 230000 B          | 250000           | 300000           | 290000               | 390000           | 290000           | 280000           |                   |                  |                  |                 | 29000            | 33000            | 28000            |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 | 2 U              | 10 U             | 10 U             |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 | 95.3             | 2 B J            | 10 U             |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Ethane                           |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Ethene                           |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| pH                               |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  | 421000           |                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                  |                  |                   |                  |                  |                      |                  |                  |                  |                   |                  |                  |                 |                  |                  |                  |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | CW-20<br>5/7/14 | CW-20<br>6/5/14 | CW-20<br>7/2/14 | CW-20<br>8/5/14 | CW-20<br>9/10/14 | CW-20<br>10/8/14 | CW-20<br>10/31/14 | CW-20<br>1/20/15 | CW-20<br>2/25/15 | CW-20<br>3/25/15 | CW-20<br>4/22/15 | CW-20<br>5/20/15 | Lift Station<br>6/20/06 | Lift Station Deep Foundation<br>5/20/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------------|---|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      | 210000 B        | 180000 B        | 200000          | 210000 B        | 240000 B         | 230000 B         | 240000 B          | 200000 B         | 230000 B         | 220000 B         | 220000 B         | 230000 B         |                         |   |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      | 5000 U          | 5000 U          | 5000 U          | 5000 U          | 5000 U           | 5000 U           | 5000 U            | 5000 U           | 5000 U           | 5000 U           | 5000 U           | 5000 U           |                         |   |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 210000 B        | 180000 B        | 200000          | 210000 B        | 240000 B         | 230000 B         | 240000 B          | 200000 B         | 230000 B         | 220000 B         | 220000 B         | 230000 B         | 226000                  |   |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Bromide                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Chloride                         |                            |                          | 250000                    |                          |                      | 160000          | 180000 B        | 170000 B        | 150000          | 150000 B         | 160000 B         | 170000            | 170000           | 160000 B         | 170000 B         | 170000           | 160000 B         | 27400                   |   |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 4100            | 5300            | 4600            | 3900            | 3700             | 3700             | 3600              | 3900 B           | 3600             | 3400 B           | 3300             | 3100 B           | 1200                    |   |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  | 500 U                   |   |
| Sulfate                          |                            |                          |                           |                          |                      | 30000           | 37000 B         | 34000           | 31000           | 28000 B          | 29000 B          | 31000             | 30000            | 30000            | 29000            | 31000            | 29000            | 19700                   |   |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 10 U                                    |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 2.6 B J                                 |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 238000                                  |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 7.3 SU                                  |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 518 umhos/cm                            |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 317000                                  |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         |   |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                 |                  |                  |                   |                  |                  |                  |                  |                  |                         | 2300                                    |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | Lift Station Deep Foundation<br>5/24/13 | Lift Station Toe of Slope<br>5/20/08 | Cole D<br>5/1/08 | Cole D<br>5/1/08 | Cole D<br>9/12/08 | Cole D<br>7/9/10 | Cole F<br>5/1/08 | Cole F<br>9/8/08 | Cole F<br>7/8/10 | Cole F<br>9/19/13 | Cole F<br>9/19/13 | Cole F<br>10/28/14 | Cole F<br>10/28/14 | MW-4 (Cole)<br>5/1/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|---|--------------------------------------|------------------|------------------|-------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|--------------------|--------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 | 1.9 U                                   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    | 240000 B           |                       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    | 5000 U             |                       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  | 200000 B          |                   | 240000 B           |                    |                       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Bromide                          |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  | 41000             |                   | 63000              |                    |                       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |   |                                      |                  |                  |                   |                  |                  |                  |                  | 2400              |                   | 3000               |                    |                       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Sulfate                          |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  | 11000             |                   | 12000              |                    |                       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  | R                 |                   | 3000 U             |                    |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |   | 10 U                                 |                  | 10 U             | 2.8 B J           |                  | 10 U             | 10 U             |                  |                   |                   |                    |                    | 10 U                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |   | 2.6 B J                              | 10 U             |                  | 3.1 B J           |                  | 10 U             | 10 U             |                  |                   |                   |                    |                    | 10 U                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   | 6900               |                    |                       |
| Carbonate                        |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Ethane                           |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    | 0.50 U             |                       |
| Ethene                           |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    | 0.50 U             |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Methane                          |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    | 0.50 U             |                       |
| pH                               |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Silica                           |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Specific Conductance             |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   | 282000           |                  |                  | 327000           |                   |                   |                    |                    |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Turbidity                        |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   | 1000 B            |                    | 770 J              |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |   |                                      |                  |                  |                   |                  |                  |                  |                  |                   |                   |                    |                    |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | MW-4 (Cole)<br>9/8/08 | MW-4 (Cole)<br>7/8/10 | Kinsley Quarry Well<br>3/9/95 | Kinsley Quarry Well<br>6/7/95 | RW-2<br>7/19/96 | RW-2<br>10/20/97 | RW-2<br>12/8/98 | RW-2<br>7/30/99 | RW-2<br>3/30/00 | RW-2<br>6/20/01 | RW-2<br>6/12/02 | RW-2<br>6/15/05 | RW-2<br>4/22/08 | RW-2<br>9/26/08 | RW-2<br>7/6/10 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|-----------------------|-------------------------------|-------------------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 13000           | 10000           |                 |                 |                 |                 |                |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 13000           | 10000           |                 |                 |                 |                 |                |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Bromide                          |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Chloride                         |                            |                          | 250000                    |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 7500            | 5000 U          |                 |                 |                 |                 |                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Sulfate                          |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 39000           | 5500            |                 |                 |                 |                 |                |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 10 U                  |                       | 5 U                           | 10 U                          | 5 U             | 0 U              | 0 U             | 10 U            | 10 U            | 0 U             | 0 U             | 10 U            | 10 U            | 10 U            |                |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 10 U                  |                       | 5 U                           | 10 U                          | 5 U             | 0 U              | 0 U             | 10 U            | 10 U            | 0 U             | 0 U             | 10 U            | 10 U            | 10 U            |                |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Ethane                           |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Ethene                           |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 36000           | 28000           |                 |                 |                 |                 |                |
| Methane                          |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| pH                               |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Silica                           |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 | 95000           | 47000           |                 |                 |                 |                 | 142000         |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                       | 437000                        |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                       |                               |                               |                 |                  |                 |                 |                 |                 |                 |                 |                 |                 |                |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | RW-2<br>9/10/13 | RW-2<br>9/10/13 | RW-2<br>10/20/14 | RW-2<br>10/20/14 | RW-4 Folk<br>12/5/91 | RW-4 Folk<br>3/11/92 | RW-4 Folk<br>6/12/92 | RW-4 Folk<br>9/30/92 | RW-4 Folk<br>12/18/92 | RW-4 Folk<br>2/24/93 | RW-4 Folk<br>6/22/93 | RW-4 Folk<br>8/30/93 | RW-4 Folk<br>11/30/93 | RW-4 Folk<br>1/26/94 | RW-4 Folk<br>4/5/94 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|------------------|------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|----------------------|---------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                  | 8000 B           |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                  | 5000 U           |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 11000 B         |                 | 8000 B           |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Bromide                          |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Chloride                         |                            |                          | 250000                    |                          |                      | 9000            |                 | 11000            |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 5200            |                 | 4200             |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Sulfate                          |                            |                          |                           |                          |                      | 2700            |                 | 2200             |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Sulfide, Total                   |                            |                          |                           |                          |                      | 3000 U          |                 | 3000 U           |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                 |                 |                  |                  | U                    | U                    | U                    | U                    | U                     | U                    | U                    | U                    | U                     | U                    | U                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                 |                 |                  |                  | U                    | U                    | U                    | U                    | U                     | U                    | 10                   | U                    | U                     | U                    | U                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 | 16000            |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 | 0.50 U           |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 | 0.50 U           |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Methane                          |                            |                          |                           |                          |                      |                 |                 | 0.95             |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 | 700 J B         | 490 J            |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                  |                  |                      |                      |                      |                      |                       |                      |                      |                      |                       |                      |                     |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | RW-4 Folk<br>7/15/94 | RW-4 Folk<br>11/14/94 | RW-4 Folk<br>3/9/95 | RW-4 Folk<br>6/7/95 | RW-4 Folk<br>9/4/96 | RW-4 Folk<br>12/3/96 | RW-4 Folk<br>3/6/97 | RW-4 Folk<br>6/4/97 | RW-4 Folk<br>2/27/04 | RW-4 Folk<br>5/28/04 | RW-4 Folk<br>8/27/04 | RW-4 Folk<br>9/22/04 | RW-4 Folk<br>11/24/04 | RW-4 Folk<br>3/1/05 | RW-4 Folk<br>5/17/05 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|---------------------|----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Bromide                          |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Chloride                         |                            |                          | 250000                    |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Sulfate                          |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                  | 5 U                   | 5 U                 | 10 U                | 5 U                 | 5 U                  | 5 U                 | 5 U                 | 5 U                  | 5 U                  | 5 U                  | 5 U                  | 5 U                   | 5 U                 | 5 U                  |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                  | 5 U                   | 5 U                 | 10 U                | 5 U                 | 5 U                  | 5 U                 | 5 U                 | 5 U                  | 5 U                  | 10 U                 |                      | 5 U                   | 5 U                 | 5 U                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Carbonate                        |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Ethane                           |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Ethene                           |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Methane                          |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| pH                               |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Silica                           |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Specific Conductance             |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Temperature (C)                  |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Turbidity                        |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                      |                       |                     |                     |                     |                      |                     |                     |                      |                      |                      |                      |                       |                     |                      |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | RW-4 Folk<br>8/18/05 | RW-4 Folk<br>11/15/05 | RW-4 Folk<br>2/16/06 | RW-4 Folk<br>5/19/06 | RW-4 Folk<br>8/9/06 | RW-4 Folk<br>11/4/06 | RW-4 Folk<br>2/13/07 | RW-4 Folk<br>5/10/07 | RW-4 Folk<br>8/22/07 | RW-4 Folk<br>5/14/08 | RW-4 Folk<br>9/10/08 | RW-4 FOLK<br>6/18/09 | RW-4 FOLK<br>6/25/10 | RW-5<br>3/6/90 | RW-5<br>12/5/91 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Bromide                          |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Chloride                         |                            |                          | 250000                    |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                  | 10 U                  | 10 U                 | 2 U                  | 2 U                 | 2 U                  | 2 U                  | 2 U                  | 2 U                  | 10 U                 | 10 U                 | 2.3 B J              |                      |                | U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                  | 10 U                  | 10 U                 | 10 U                 | 10 U                | 10 U                 | 8.9 B                | 10 U                 | 10 U                 | 10 U                 | 10 U                 | 10 U                 |                      | 6              | U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Ethane                           |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Ethene                           |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Methane                          |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| pH                               |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Silica                           |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Specific Conductance             |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Temperature (C)                  |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      | 110000               |                |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                      |                       |                      |                      |                     |                      |                      |                      |                      |                      |                      |                      |                      |                |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | RW-5<br>3/11/92 | RW-5<br>6/12/92 | RW-5<br>9/30/92 | RW-5<br>12/18/92 | RW-5<br>2/24/93 | RW-5<br>6/22/93 | RW-5<br>8/30/93 | RW-5<br>11/30/93 | RW-5<br>1/26/94 | RW-5<br>4/5/94 | RW-5<br>7/15/94 | RW-5<br>11/14/94 | RW-5<br>3/9/95 | RW-5<br>6/7/95 | RW-5<br>9/7/95 | RW-5<br>10/27/95 | RW-5<br>12/7/95 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|------------------|-----------------|----------------|-----------------|------------------|----------------|----------------|----------------|------------------|-----------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                | 280000           |                 |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Bromide                          |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 660             |
| Chloride                         |                            |                          | 250000                    |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 37000           |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 40              |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 2000            |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Sulfate                          |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 34000           |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | U               | U               | U               | U                | U               | U               | U               | U                | U               | U              | 5 U             | 5 U              | 5 U            | 10 U           | U              | 5 U              | U               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | U               | U               | U               | U                | U               | U               | U               | U                | U               | U              | 5 U             | 5 U              | 5 U            | 10 U           | U              | 5 U              | U               |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Carbonate                        |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 5000 U          |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Ethane                           |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Ethene                           |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 320000          |
| Methane                          |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| pH                               |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 7.69 SU         |
| Silica                           |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 400             |
| Specific Conductance             |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 810 umhos/cm    |
| Temperature (C)                  |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  | 390000          |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Turbidity                        |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                 |                 |                 |                  |                 |                 |                 |                  |                 |                |                 |                  |                |                |                |                  |                 |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | RW-5<br>12/29/95 | RW-5<br>3/7/96 | RW-5<br>9/4/96 | RW-5<br>12/3/96 | RW-5<br>3/6/97 | RW-5<br>6/4/97 | RW-5<br>7/30/99 | RW-5<br>3/31/00 | RW-5<br>4/22/08 | RW-5<br>9/26/08 | RW-5<br>7/7/10 | TWB-6<br>7/13/95 | HERMAN (S-7)<br>12/5/91 | HERMAN (S-7)<br>3/11/92 | HERMAN (S-7)<br>9/30/92 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------|----------------|----------------|-----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|------------------|-------------------------|-------------------------|-------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                  |                |                |                 |                |                | 240000          | 240000          |                 |                 |                |                  |                         |                         |                         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      | 300000           |                |                |                 |                |                | 240000          | 240000          |                 |                 |                |                  |                         |                         |                         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Bromide                          |                            |                          |                           |                          |                      | 550              |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Chloride                         |                            | 250000                   |                           |                          |                      | 37000            |                |                |                 |                |                | 32000           | 28000           |                 |                 |                |                  |                         |                         |                         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  | 40               |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                | 2000             |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Sulfate                          |                            |                          |                           |                          |                      | 37000            |                |                |                 |                |                | 7000            | 44000           |                 |                 |                |                  |                         |                         |                         |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U              | U              | 5 U            | 5 U             | 5 U            | 5 U            | 10 U            | 10 U            | 10 U            | 10 U            |                |                  | U                       | U                       | U                       |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U              | U              | 5 U            | 5 U             | 5 U            | 5 U            | 10 U            | 10 U            | 10 U            | 10 U            |                |                  | U                       | U                       | U                       |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Carbonate                        |                            |                          |                           |                          |                      | 5000 U           |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Ethane                           |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Ethene                           |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      | 340000           |                |                |                 |                |                | 260000          | 270000          |                 |                 |                |                  |                         |                         |                         |
| Methane                          |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| pH                               |                            |                          |                           |                          |                      | 7.48 SU          |                |                |                 |                |                |                 |                 |                 |                 |                | 7.26 SU          |                         |                         |                         |
| Silica                           |                            |                          |                           |                          |                      | 500              |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Specific Conductance             |                            |                          |                           |                          |                      | 790 umhos/cm     |                |                |                 |                |                |                 |                 |                 |                 |                | 630 umhos/cm     |                         |                         |                         |
| Temperature (C)                  |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Total Dissolved Solids           |                            |                          |                           |                          |                      | 380000           |                |                |                 |                |                | 400000          | 320000          |                 |                 |                | 718000           |                         |                         |                         |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Turbidity                        |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                  |                |                |                 |                |                |                 |                 |                 |                 |                |                  |                         |                         |                         |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | HERMAN (S-7)<br>12/18/92 | HERMAN (S-7)<br>2/24/93 | HERMAN (S-7)<br>6/22/93 | HERMAN (S-7)<br>8/30/93 | HERMAN (S-7)<br>11/30/93 | HERMAN (S-7)<br>1/26/94 | HERMAN (S-7)<br>4/5/94 | HERMAN (S-7)<br>7/15/94 | HERMAN (S-7)<br>11/14/94 | HERMAN (S-7)<br>3/9/95 | HERMAN (S-7)<br>6/7/95 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|--------------------------|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|------------------------|-------------------------|--------------------------|------------------------|------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Bromide                          |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Chloride                         |                            |                          | 250000                    |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Sulfate                          |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | U                        | U                       | U                       | U                       | U                        | U                       | U                      | 5 U                     | 5 U                      | 5 U                    | 10 U                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | U                        | U                       | U                       | U                       | U                        | U                       | U                      | 5 U                     | 5 U                      | 5 U                    | 10 U                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Carbonate                        |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Ethane                           |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Ethene                           |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Methane                          |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| pH                               |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Silica                           |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Specific Conductance             |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Temperature (C)                  |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Turbidity                        |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                          |                         |                         |                         |                          |                         |                        |                         |                          |                        |                        |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | HERMAN (S-7)<br>9/4/96 | HERMAN (S-7)<br>12/3/96 | HERMAN (S-7)<br>3/6/97 | HERMAN (S-7)<br>6/4/97 | HERMAN (S-7)<br>2/27/04 | HERMAN (S-7)<br>5/28/04 | HERMAN (S-7)<br>8/27/04 | HERMAN (S-7)<br>9/22/04 | HERMAN (S-7)<br>11/24/04 | HERMAN (S-7)<br>3/1/05 | HERMAN (S-7)<br>5/17/05 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------------|-------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|------------------------|-------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Bromide                          |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Chloride                         |                            |                          | 250000                    |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Sulfate                          |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                    | 5 U                     | 5 U                    | 5 U                    | 5 U                     | 5 U                     |                         | 5 U                     | 5 U                      | 5 U                    | 5 U                     |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                    | 5 U                     | 5 U                    | 5 U                    | 5 U                     | 5 U                     | 10 U                    |                         | 5 U                      | 5 U                    | 5 U                     |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Carbonate                        |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Ethane                           |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Ethene                           |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Methane                          |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| pH                               |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Silica                           |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Specific Conductance             |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Temperature (C)                  |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Turbidity                        |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                        |                         |                        |                        |                         |                         |                         |                         |                          |                        |                         |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | HERMAN (S-7)<br>8/18/05 | HERMAN (S-7)<br>11/15/05 | HERMAN (S-7)<br>2/16/06 | HERMAN (S-7)<br>5/19/06 | HERMAN (S-7)<br>8/9/06 | HERMAN (S-7)<br>11/4/06 | HERMAN (S-7)<br>2/13/07 | HERMAN (S-7)<br>5/10/07 | HERMAN (S-7)<br>5/14/08 | HERMAN (S-7)<br>6/26/09 | S-3<br>6/8/98 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-------------------------|--------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Bromide                          |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Chloride                         |                            |                          | 250000                    |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         | 10000         |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Sulfate                          |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         | 11000         |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                     | 10 U                     | 10 U                    | 1.8 B                   | 0.8 B                  | 30                      | 2 U                     | 2 U                     | 10 U                    | 1.8 B J                 | 0 U           |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                     | 10 U                     | 10 U                    | 10 U                    | 10 U                   | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 10 U                    | 0 U           |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Carbonate                        |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Ethane                           |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Ethene                           |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Methane                          |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| pH                               |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Silica                           |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Specific Conductance             |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Temperature (C)                  |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Turbidity                        |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                         |                          |                         |                         |                        |                         |                         |                         |                         |                         |               |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.



**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | S-3<br>3/22/00 | S-4<br>6/8/98 | S-4<br>3/22/00 | S-8<br>3/6/90 | S-8<br>6/6/90 | S-8<br>9/5/90 | S-8<br>9/5/91 | S-8<br>3/11/92 | S-8<br>9/30/92 | S-8<br>12/18/92 | S-8<br>2/24/93 | S-9<br>6/8/98 | S-9<br>3/22/00 | Spring<br>7/15/94 | Spring at Bldg 14 S1<br>4/30/08 | Spring at Bldg 14 S1<br>9/5/08 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|----------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|----------------|-----------------|----------------|---------------|----------------|-------------------|---------------------------------|--------------------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Bromide                          |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                | 1 U               |                                 |                                |
| Chloride                         |                            | 250000                   |                           |                          |                      | 17000          | 14000         | 9700           |               |               |               |               |                |                |                 |                | 9900          | 8600           |                   |                                 |                                |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Sulfate                          |                            |                          |                           |                          |                      | 19000          | 9000          | 29000          |               |               |               |               |                |                |                 |                | 0 U           | 15000          |                   |                                 |                                |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 0 U            | 0 U           | 0 U            |               |               |               | U             | U              | U              | U               | U              | 0 U           | 0 U            | 5 U               | 10 U                            | 10 U                           |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 0 U            | 0 U           | 0 U            | 10            | 10            | 7             | U             | U              | U              | U               | U              | 0 U           | 0 U            | 5 U               | 3.2 B                           | 4.6 B                          |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Carbonate                        |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Ethane                           |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Ethene                           |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Methane                          |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| pH                               |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Silica                           |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Specific Conductance             |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Temperature (C)                  |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Turbidity                        |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                |               |                |               |               |               |               |                |                |                 |                |               |                |                   |                                 |                                |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | Spring at Bldg 14 S1<br>6/25/10 | Spring at Bldg 14 S2<br>4/30/08 | Spring at Bldg 14 S2<br>9/5/08 | Spring at Bldg 14 S2<br>7/9/10 | TATE (S-6)<br>3/11/92 | TATE (S-6)<br>6/12/92 | TATE (S-6)<br>9/30/92 | TATE (S-6)<br>11/13/92 | TATE (S-6)<br>12/23/92 | TATE (S-6)<br>2/24/93 | TATE (S-6)<br>6/22/93 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|-----------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Bromide                          |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Sulfate                          |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  |                                 |                                 | 10 U                           | 10 U                           | U                     |                       | 5                     | U                      | U                      | U                     | U                     |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  |                                 |                                 | 10 U                           | 10 U                           | U                     | U                     | 13                    | U                      | U                      | U                     | U                     |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Carbonate                        |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Ethane                           |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Ethene                           |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Methane                          |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| pH                               |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Silica                           |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Specific Conductance             |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                                 | 384000                          |                                | 143000                         |                       |                       |                       |                        |                        |                       |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Turbidity                        |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                                 |                                 |                                |                                |                       |                       |                       |                        |                        |                       |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | TATE (S-6)<br>8/30/93 | TATE (S-6)<br>11/30/93 | TATE (S-6)<br>2/28/94 | TATE (S-6)<br>4/5/94 | TATE (S-6)<br>7/15/94 | TATE (S-6)<br>11/14/94 | TATE (S-6)<br>6/7/95 | TATE (S-6)<br>9/4/96 | TATE (S-6)<br>12/3/96 | TATE (S-6)<br>3/6/97 | TATE (S-6)<br>6/4/97 | TATE (S-6)<br>2/27/04 | TATE (S-6)<br>5/28/04 | TATE (S-6)<br>8/27/04 | TATE (S-6)<br>9/22/04 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|------------------------|-----------------------|----------------------|-----------------------|------------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Bromide                          |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Sulfate                          |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | U                     | U                      | U                     | U                    | 5 U                   | 5 U                    | 10 U                 | 5 U                  | 5 U                   | 5 U                  | 5 U                  | 5 U                   | 5 U                   | 5 U                   | 5 U                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | U                     | U                      | U                     | U                    | 5 U                   | 5 U                    | 10 U                 | 5 U                  | 5 U                   | 5 U                  | 5 U                  | 5 U                   | 5 U                   | 10 U                  | 5 U                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Ethane                           |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Ethene                           |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Methane                          |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| pH                               |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Silica                           |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                        |                       |                      |                       |                        |                      |                      |                       |                      |                      |                       |                       |                       |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R= Result rejected.

Table 2.2-4d  
Groundwater Data Summary - Other Analyses  
Former York Naval Ordnance Plant - York, PA

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | TATE (S-6)<br>11/24/04 | TATE (S-6)<br>3/1/05 | TATE (S-6)<br>5/17/05 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|------------------------|----------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                        |                      |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                        |                      |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                        |                      |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                        |                      |                       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                        |                      |                       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                        |                      |                       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                        |                      |                       |
| Bromide                          |                            |                          |                           |                          |                      |                        |                      |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      |                        |                      |                       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                        |                      |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                        |                      |                       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                        |                      |                       |
| Sulfate                          |                            |                          |                           |                          |                      |                        |                      |                       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                        |                      |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                        |                      |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                    | 5 U                  | 5 U                   |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                    | 5 U                  | 5 U                   |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                        |                      |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                        |                      |                       |
| Carbonate                        |                            |                          |                           |                          |                      |                        |                      |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                        |                      |                       |
| Ethane                           |                            |                          |                           |                          |                      |                        |                      |                       |
| Ethene                           |                            |                          |                           |                          |                      |                        |                      |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                        |                      |                       |
| Methane                          |                            |                          |                           |                          |                      |                        |                      |                       |
| pH                               |                            |                          |                           |                          |                      |                        |                      |                       |
| Silica                           |                            |                          |                           |                          |                      |                        |                      |                       |
| Specific Conductance             |                            |                          |                           |                          |                      |                        |                      |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                        |                      |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                        |                      |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                        |                      |                       |
| Turbidity                        |                            |                          |                           |                          |                      |                        |                      |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                        |                      |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                        |                      |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                        |                      |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                        |                      |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                        |                      |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                        |                      |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                      |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                      |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                      |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                        |                      |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                        |                      |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                        |                      |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                        |                      |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R = Result rejected.

**Table 2.2-4d**  
**Groundwater Data Summary - Other Analyses**  
**Former York Naval Ordnance Plant - York, PA**

| Parameter                        | Location/ID<br>Sample Date | PA MSC<br>UA R<br>(ug/L) | PA MSC<br>UA NR<br>(ug/L) | Federal<br>MCL<br>(ug/L) | EPA<br>RSL<br>(ug/L) | TATE (S-6)<br>8/18/05 | TATE (S-6)<br>11/15/05 | TATE (S-6)<br>2/16/06 | TATE (S-6)<br>5/19/06 | TATE (S-6)<br>8/9/06 | TATE (S-6)<br>11/4/06 | TATE (S-6)<br>2/13/07 | TATE (S-6)<br>5/10/07 | TATE (S-6)<br>5/14/08 | TATE (S-6)<br>6/26/09 |
|----------------------------------|----------------------------|--------------------------|---------------------------|--------------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>1,4 Dioxane</b>               |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| 1,4-Dioxane                      |                            | 6.4                      | 32                        |                          | 0.78                 |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Alkalinity</b>                |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| ALKALINITY, BICARBONATE          |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| ALKALINITY, CARBONATE            |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| ALKALINITY, TOTAL                |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Anions</b>                    |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Bromide                          |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Chloride                         |                            |                          | 250000                    |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Fluoride                         |                            | 4000                     | 4000                      |                          | 800                  |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Nitrate As N                     |                            | 10000                    | 10000                     | 10000                    | 32000                |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Orthophosphate As P              |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Sulfate                          |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Sulfide, Total                   |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Cyanide</b>                   |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Cyanide, Free                    |                            | 200                      | 200                       | 200                      | 1.5                  | 5 U                   | 10 U                   | 10 U                  | 2 U                   | 2 U                  | 2 U                   | 2 U                   | 2 U                   | 10 U                  | 2.3 B J               |
| Cyanide, Total                   |                            | 200                      | 200                       |                          | 1.5                  | 5 U                   | 5 J B                  | 10 U                  | 10 U                  | 10 U                 | 10 U                  | 10 U                  | 10 U                  | 10 U                  | 10 U                  |
| <b>Other</b>                     |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Carbon Dioxide                   |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Carbonate                        |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Dissolved Oxygen                 |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Ethane                           |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Ethene                           |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Hardness, As CaCO3               |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Methane                          |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| pH                               |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Silica                           |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Specific Conductance             |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Temperature (C)                  |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Total Dissolved Solids           |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Total Suspended Solids           |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Turbidity                        |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Other (Dissolved)</b>         |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Dissolved Organic Carbon         |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Polychlorinated Biphenols</b> |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1016                    |                            | 2.6                      | 7.2                       | 0.5                      | 1.1                  |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1221                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1232                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.0046               |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1242                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1248                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1254                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Arochlor-1260                    |                            | 0.33                     | 1.3                       | 0.5                      | 0.039                |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| PCBs (Total)                     |                            | 0.5                      | 0.5                       | 0.5                      | 0.19                 |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| <b>Total Organic Carbons</b>     |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |
| Total Organic Carbon             |                            |                          |                           |                          |                      |                       |                        |                       |                       |                      |                       |                       |                       |                       |                       |

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference. R=Result rejected.