

**TABLE 3.3-2a**  
**MNA SCREENING PROCESS CALCULATIONS**  
Former York Naval Ordnance Plant  
1425 Eden Road, Springettsbury Township, York, PA

Area	Conduits in CPA								
	CW-8		CW-8		MW-137A		MW-137A		
Location	(99-128)		(99-128)		(295.5-296)		(295.5-296)		
Open Interval FBGS									
Sample Type									
Sample Date	9/16/13		10/30/14		10/8/13		10/21/14		
Analytical Parameters	USEPA Concentration Criteria/ Possible Points Value (1)	Concentration in Well	Points Awarded	Concentration in Well	Points Awarded	Concentration in Well	Points Awarded	Concentration in Well	Points Awarded
Dissolved Oxygen	<0.5 (mg/L) / 3 >1 (mg/L) / -3	4.07	-3	0	0	0.52	0	0.51	0
Nitrate	<1 (mg/L) / 2	3.9	0	4.2 B	0	1.0	0	2.4	0
Ferrous Iron	>1 (mg/L) / 3	< 0.05	0	< 0.05	0	< 0.05	0	< 0.05	0
Sulfate	<20 (mg/L) / 2	20	0	21 B	0	13 B	2	60	0
Sulfide	>1 (mg/L) / 3	R	0	< 3	0	< 3	0	< 3	0
Methane	<0.5 (mg/L) / 0 >0.5 (mg/L) / 3	NA	0	0.0032 B	0	NA	0	0.00045 JB	0
Ethene/Ethane	>0.01 (mg/L) / 2 >0.1 (mg/L) / 3	NA	0	0.0024	0	NA	0	0.00069 J	0
Alkalinity (2)	>2x background / 1	200 B	0	180 B	0	220 B	0	260 B	0
Chloride (2)	>2x background / 2	190	2	160 B	2	95	2	160	2
BTEX	>0.1 (mg/L) / 2	< 0.077	0	< 0.077	0	< 0.15	0	< 0.30	0
PCE	Material Released / 0	38	0	120	0	< 25	0	160	0
TCE	Material Released or Daughter Product / 0/2	140	0	100	0	170	0	750	0
cis-1,2-DCE	Material Released or Daughter Product / 0/2	160	2	250	2	640	2	1100	2
VC	Material Released or Daughter Product / 0/2	< 13	0	< 13	0	< 25	0	< 50	0
TCA	Material Released / 0	22	0	38	0	< 25	0	250	0
11 DCA	Material Released or Daughter Product / 0/2	5 J	2	14	2	13 J	2	15 J	2
Chlorethane	Daughter Product / 2	< 13	0	< 13	0	< 25	0	< 50	0
ORP	<50 (mV) / 1 <-100 (mV) / 2	109	0	-28	1	52	0	125	0
pH	5 < pH < 9 / 0 5 > pH > 9 / -2	7.49	0	7.3	0	7.43	0	6.15	0
Temperature	> 20 °C / 1	15.5	0	13.4	0	18.5	0	20.72	1
<b>Total Points Awarded (Score)</b>			<b>3</b>		<b>7</b>		<b>8</b>		<b>7</b>

Score	Evidence for Reductive Dechlorination
0 to 5	Inadequate
6 to 14	Limited
15 to 20	Adequate
> 20	Strong

Notes:

NA = Not available. J = Organics; estimated. Inorganics; blank contamination; B = Organics; blank contamination. Inorganics; estimated; HF = Hold time exceedance as analysis is a field method; R = Data Rejected  
Material Released = Released at Site; Daughter Product = From reductive dechlorination.

(1) Concentration Criteria and Points Awarded are from Table 2.3 (Analytical Parameters and Weighting for Preliminary Screening for Anaerobic Biodegradation Processes) in the USEPA *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater* (EPA/600/R-981/28) dated September 1998.

(2) Published background concentrations for alkalinity and chloride obtained from *Groundwater Resources of the Lower Susquehanna River Basin, Pennsylvania*, 1986. 2X background concentrations for alkalinity and chloride in the Antietam Formation are 128 mg/L and 20 mg/L, respectively and in the Vintage Formation are 396 mg/L and 48 mg/L, respectively.