GROUNDWATER EXTRACTION AND TREATMENT SYSTEM ANNUAL OPERATIONS REPORT FOR THE PERIOD JULY 1, 1999, THROUGH DECEMBER 31, 2000

SAIC Project 01-1633-00-0822-100

Prepared for

Harley-Davidson Motor Company
York, PA

September 2001

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By

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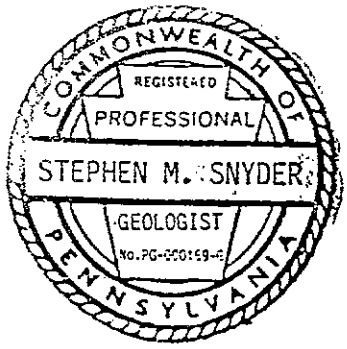

Respectfully submitted,

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ALSI	-	Analytical Laboratory Services, Inc.
bgs	-	below ground surface
cfm	-	cubic feet per minute
COC	-	chain of custody
DCE	-	1,2-Dichloroethene
DEP	-	Pennsylvania Department of Environmental Protection
EPA	-	United States Environmental Protection Agency
GAC	-	granular-activated carbon
gpd	-	gallons per day
gpm	-	gallons per minute
Harley-Davidson	-	Harley-Davidson Motor Company
IWTP	-	Industrial Wastewater Treatment Plant
MCL	-	maximum contaminant level
mg/l	-	milligrams per liter
NB4	-	North Building 4
NPBA	-	Northeast Property Boundary Area
NPDES	-	National Pollutant Discharge Elimination System
PCE	-	Tetrachloroethene
PTA	-	Packed Tower Aerator
RI/FS	-	remedial investigation/feasibility study
SAIC	-	Science Applications International Corporation
SPBA	-	Southeast Property Boundary Area
TCA	-	1,1,1-Trichloroethane
TCE	-	Trichloroethene
TFO	-	Thermal Fume Oxidizer
TVOCs	-	total volatile organic compounds
µg/l	-	micrograms per liter
VOCs	-	volatile organic compounds
WPL	-	West Parking Lot

EXECUTIVE SUMMARY

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The groundwater extraction and treatment system located at Harley-Davidson Motor Company (Harley-Davidson) in York, Pennsylvania has been in operation for just over ten years. The system operated continuously with few interruptions during the report period of July 1, 1999, through December 31, 2000. The groundwater extraction and treatment system is designed to: 1) prevent off-site groundwater migration in the Northeast Property Boundary Area (NPBA); 2) remove contaminated groundwater in the Trichloroethane (TCA) Tank Area; 3) prevent off-site migration of groundwater in the West Parking Lot (WPL) Area; and 4) remove contaminated groundwater at the former degreaser location in the North Building 4 (NB4) Area.

On average, prior to start-up of the NB4 and WPL wells (WPL groundwater extraction system) in May 1994, the system removed approximately 131 gallons per minute (gpm) of groundwater and 1.2 pounds per day of volatile organic compounds (VOCs). Since the WPL system became operational, the average groundwater-pumping rate from 1995 through December 2000 is approximately 280 gpm with 8.2 pounds per day of total VOCs being removed. Science Applications International Corporation (SAIC) estimates that during the time period from November 1990 through December 2000, approximately 23,000 pounds of VOCs have been removed by the groundwater treatment system. The total amount of groundwater extracted during the 18-month report period was approximately 215 million gallons.

Operation of extraction wells in the NPBA resulted in overlapping cones of depression resulting in a trough in the groundwater table. The trough acts as a barrier to groundwater flow, thereby preventing off-site migration of the VOC plume. Similarly, extraction wells CW-8 and CW-16 developed a cone of depression in the TCA Tank Area. To prevent off-site migration of VOC-contaminated groundwater in the WPL

Area, four extraction wells were activated during May and June 1994. Groundwater elevations in the WPL indicate that groundwater capture is occurring as a result of the operation of the groundwater extraction system. Extraction well CW-15A, located at the northwestern corner of Building 4, has developed a cone of depression in the groundwater table and is removing contaminated groundwater from this former degreaser location.

The combined influent total VOC concentrations to the Packed Tower Aerator (PTA) averaged 1,416 micrograms per liter (µg/l) during the reporting period. Trichloroethene (TCE); TCA; 1,2-dichloroethene (DCE); and tetrachloroethene (PCE) are the predominant VOCs comprising the PTA influent chemistry. The PTA effectively removed all VOCs to non-detectable concentrations during the reporting period.

During the report period, the extraction wells, off-site locations and site-wide monitoring wells were sampled for VOCs. Site-wide water levels were measured three times during the reporting period.

VOC concentrations in extraction and monitoring wells in the NPBA have remained fairly constant or have slightly increased during the report period. The VOC concentrations in the TCA Tank Area have not significantly changed during the report period. VOC concentrations have decreased or remained the same during the reporting period in WPL extraction wells, but have shown some increases in WPL monitoring wells. The historical trend of total VOC concentrations in the extraction wells have been generally decreasing with time.

Off-site sampling of local water supplies (wells and springs) is routinely conducted at four locations near the northern edge of the property. Laboratory analysis of these samples detect no chemicals common to Harley-Davidson groundwater. Samples did

detect the presence of trihalomethanes at well below regulatory levels of concern. Trihalomethanes are common in treated drinking water.

One off-site well, the Jack Giambalvo well (RW-5), is located near the southern property edge, but was replaced as a water supply well by connection to the municipal water system in 1999. RW-5 was sampled once during the report period, but is no longer routinely sampled as a water supply well.

The quarterly off-site sampling continues to verify the lack of impacts to off-site surface and groundwater supplies.

1.0 INTRODUCTION

1.0 INTRODUCTION

The purpose of this report is to summarize the operating record for the Harley-Davidson Motor Company (Harley-Davidson) groundwater extraction and treatment system, and to present groundwater quality data and groundwater level data monitored across the site. The Harley-Davidson facility is located in Springettsbury Township, York, Pennsylvania, as shown on Figure 1-1. This report covers an 18-month time period extending from July 1, 1999, through December 31, 2000. The reporting period has typically been reported for a 12-month period from July through June, but this report has been extended in an effort to provide future annual reporting consistent with the calendar year.

The groundwater extraction portion of the system consists of 15 extraction wells (CW-1, CW-1A, CW-2 through CW-7, CW-7A, CW-8, CW-9, CW-13, CW-15A, CW-16, and CW-17) operating in three separate areas designated the Northeast Property Boundary Area (NPBA), the West Parking Lot (WPL) Area (including the North Building 4 [NB4] Area), and the Trichloroethane (TCA) Tank Area as shown on Figure 1-2.

Extracted groundwater is piped to the central treatment system, located in the groundwater treatment building, for processing through a Packed Tower Aerator (PTA) system prior to discharge to an unnamed tributary of the Codorus Creek (Figure 1-1). Figure 1-3 shows a schematic diagram of the system. Prior to May 1994, PTA off-gases were treated by a granular-activated carbon (GAC) filter system for removal of volatile organic compounds (VOCs) prior to discharge to the atmosphere. Since then, the VOCs have been directed from the PTA through a thermal fume oxidizer (TFO) for destruction prior to discharge.

The groundwater extraction and PTA treatment systems were brought on-line pursuant to an order from the Pennsylvania Department of Environmental Protection (DEP), dated

September 11, 1990. In November 1990, ten extraction wells in the NPBA and TCA Tank Areas were brought on-line, while ongoing studies were performed in the WPL. The WPL Area was brought on-line in May 1994. In conjunction with WPL start-up, PTA off-gases were redirected from the GAC filter to the TFO.

On December 2, 1993, National Pollutant Discharge Elimination System (NPDES) permit No. PA0085677 was issued for the system. This report satisfies Part C, Section 1, Item E of the permit.

The data presented in this report were collected by Science Applications International Corporation (SAIC) under contract to Harley-Davidson, and are summarized in the following chapter format:

- Chapter 2.0, *Geology and Hydrogeology*, briefly summarize the hydrogeologic conditions of the site.

- Chapter 3.0, *Site-Wide Groundwater Monitoring*, summarizes groundwater levels and quality.

- Chapter 4.0, *Groundwater Collection and Treatment System*, describes the design capacity of the system and presents the record of influent and effluent water quality. The VOC loading to the PTA and TFO unit also is presented.

- Chapter 5.0, *NPBA Groundwater Extraction System*, summarizes water levels and VOC concentrations for each extraction well in the NPBA. System performance is evaluated based upon observed trends in these data.

- Chapter 6.0, *TCA Tank Area, Groundwater Extraction System*, describes operation and performance of extraction wells CW-8 and CW-16 located in this area. Water level and VOC concentration data are used to evaluate system performance.

- Chapter 7.0, *West Parking Lot, Groundwater Extraction System*, describes the operation of extraction wells in this area. System performance, water level data, and VOC trends are presented.

- Chapter 8.0, *Off-Site Water Supply*, presents the record of groundwater quality data for off-site locations. System effectiveness at preventing off-site migration is evaluated based upon these data.

- A summary for the groundwater remediation system operation and maintenance is presented in Chapter 9.0, *Summary*.

2.0 GEOLOGY AND HYDROGEOLOGY

2.0 GEOLOGY AND HYDROGEOLOGY

Two geologic rock formations underlie the site. Solution-prone, gray limestone underlies the flat lowland (western) portion of the site, and a quartzitic sandstone underlying the more steeply sloping hills or upland area is present on the eastern part of the site. Groundwater beneath the site generally flows from the upland area at the eastern part of the site westward toward Codorus Creek. A detailed discussion of the geology and hydrogeology is included in SAIC's February 1995 report entitled, "Groundwater Extraction and Treatment System Annual Operations Report."

3.0 SITE-WIDE GROUNDWATER MONITORING

3.0 SITE-WIDE GROUNDWATER MONITORING

As part of ongoing remedial investigation/feasibility study (RI/FS) activities being conducted, a total of 37 new groundwater-monitoring wells were installed at the site during the reporting period. These new monitoring wells are identified as MW-65 through MW-92 (see Figure 3-1). The depth to water was measured in site-wide groundwater wells three times during the reporting period (October 1, 1999, December 22-23, 1999, and June 1, 2000). The depth to water was measured in approximately 145 monitoring wells, groundwater collection wells and piezometers during these events. Site-wide groundwater sampling and analysis was conducted during September 1999 and March/April 2000. The groundwater surface elevation data for these events are presented in Appendix A, Table A-1. A summary of detected VOC results from the site-wide sampling, conducted during September 1999 and March/April 2000 is presented on Table A-2, of Appendix A.

Although a select group of monitoring wells, identified as "key wells" (see Figure 3-1) are typically sampled and analyzed each year, a specific key well sampling event was not conducted this year due to the ongoing RI/FS sampling. Approximately sixty wells, including collection wells, key wells, off-site wells, and other site monitoring wells were sampled during September 1999 and March/April 2000 by another contractor to Harley-Davidson. The comprehensive results of this sampling will be provided in a separate document. Although a number of analyses were conducted for these samples, only the volatile organic compounds (VOCs) results associated with the active pumping wells, off-site wells, and other site-wide monitoring wells will be presented and discussed herein. Following completion of the RI/FS report, it will be necessary to review the key well sampling program and consider changes based on the expanded site characterization.

3.1 Groundwater Flow Patterns

Figure 3-1 presents the interpreted shallow groundwater table surface from water levels measured on December 22-23, 1999. The general configuration of the water table at the site indicates a gradient towards the west-southwest. The water table gradient is relatively steep beneath the eastern portion of the site, which is underlain by sandstone. The water table gradient is relatively flat beneath the western portion of the site, which is underlain by limestone bedrock.

The December 1999 water level measurements were generally consistent with the December 1998 water levels. A brief summary of seasonal water level fluctuations is presented below by bedrock aquifer type:

- The water levels in the eastern portion of the site underlain by sandstone ranged from 2 to 13 feet higher in December 1999 compared to December 1998. This range was determined by using wells in the areas not affected by the pumping wells of the NPBA extraction system. Wells constructed in sandstone nearest the contact with the limestone aquifer (such as well CW-10) appear to have the largest groundwater level fluctuations due to drainage into the more permeable limestone aquifer.

- Water levels in the limestone aquifer were generally 2 to 5 feet higher in December 1999 compared to December 1998. Drought conditions existed during the December 1998 measurement period, which may explain these observed differences.

3.2 Key Well Groundwater Sampling

In February 1992, a key well sampling program was initiated. Selected monitoring wells were designated as "key wells" based upon location and spatial distribution in order to provide representative groundwater quality data across the site. The locations of these "key wells" are shown on Figure 3-1. The key wells have historically been sampled annually to establish a database of groundwater quality and to monitor changes in groundwater chemistry over time. Due to remedial investigation/feasibility study activities being conducted at the site during this period, a key monitoring well-specific sampling event was not conducted. Site-wide groundwater sampling was conducted during September 1999 and March/April 2000. A summary of detected VOC results from the site-wide sampling is presented on Table A-2, of Appendix A.

General groundwater quality trends based on current and past analytical results for the key wells, the SPBA wells, off-site wells, and the groundwater collection wells are discussed in subsequent chapters of this report. Again, following completion of the RI/FS report, it will be necessary to review the key well sampling program and consider changes based on the expanded site characterization.

4.0 GROUNDWATER COLLECTION AND TREATMENT SYSTEM

4.0 GROUNDWATER COLLECTION AND TREATMENT SYSTEM

The groundwater collection and treatment system serves to remediate groundwater containing dissolved VOCs in four main areas of the site: NPBA, TCA Tank, NB4 and WPL.

4.1 System Description

Extraction wells within each of the four main groundwater extraction areas remove groundwater by way of electric submersible pumps controlled by liquid level probes and control circuitry. The water level within each well is maintained between the "on" and "off" probes thus producing an area of drawdown and groundwater capture. The extracted groundwater is conveyed via underground piping to the treatment system where the dissolved VOCs are effectively removed from the groundwater.

The groundwater treatment system is housed in a 30-foot by 40-foot block building attached to the west wall of the industrial wastewater treatment plant. The process flow diagram for the system is presented in Figure 1-3. The treatment system consists of a 2,600-gallon equalization tank; 5 foot-diameter by 47 foot high PTA capable of treating 400 gallons per minute (gpm) of water; and a TFO/incinerator for PTA off-gas treatment. A 10,000-pound vapor-phase GAC unit serves as backup to the TFO. If the TFO is shut down due to normal maintenance or a system malfunction, the WPL portion of the groundwater extraction system is deactivated to prevent excessive VOC loading to the backup GAC unit.

Collected groundwater is pumped from the equalization tank at a maximum flow rate of 400 gpm to the top of the PTA. The water is then distributed evenly over the top of the polypropylene packing and flows down through the 36-foot packed section of the PTA.

A 4,000 cubic foot per minute (cfm) centrifugal blower draws air through the PTA column. The VOCs are effectively "stripped" from the water and then destroyed by thermal oxidation as the off-gas passes through the TFO. In accordance with NPDES Permit No. PA0085677, the treated groundwater flows by gravity from the PTA sump to a storm water sewer (Outfall No. 3) and is ultimately discharged to an unnamed tributary of the Codorus Creek.

The groundwater treatment system is equipped with a PC-based Site Boss® monitoring system. Remote computer terminals are located in both Harley-Davidson and SAIC offices where extraction well pumping rates and treatment processes can be monitored and controlled. System and extraction well pumping rates are adjusted manually at the site.

4.2 Groundwater Withdrawal and Chemical Removal

Table 4-1 presents recorded groundwater withdrawal and total VOC removal that has been accomplished by the groundwater extraction and treatment system. A system-wide total of approximately 22,993 pounds of VOCs has been removed since the groundwater treatment system began operation in November 1990. On average, prior to start-up of the WPL system in May 1994, approximately 131 gpm of groundwater and 1.2 pounds per day of total VOCs were being extracted by the system. Since the WPL system became operational, the average groundwater-pumping rate from 1995 through December 2000 is approximately 280 gpm with 8.2 pounds per day of total VOCs being removed.

The total amount of groundwater extracted during the period from July 1999 through June 2000 was approximately 215 million gallons (391,000 gallons per day [gpd]; 272 gpm). This extraction rate is slightly lower than the previous report period (7/98 - 6/99) where the average values were approximately 416,000 gpd and 289 gpm. This

lower treatment rate was due in part to shut down of the system during October 1999, during a pumping test that was conducted on another part of the site. Other than this test, the groundwater remediation system operated effectively throughout the current report period with few exceptions.

Quarterly PTA influent analyses, along with the measured extraction volumes are used to calculate the mass of VOCs removed from site groundwater during the reporting period (see Figure 4-1). Using this data, the total estimated mass of VOCs removed from July 1999 through December 2000 was 2,535 pounds (141 pounds per month). This mass removal rate is slightly lower compared to 165 pounds per month (1,980 pounds in 12 months) calculated during the previous reporting period. Estimated pounds per day of total VOCs extracted by the groundwater treatment system for the last five calendar years were:

- 2000 – 4.8 pounds/day
- 1999 – 5.4 pounds/day
- 1998 – 7.7 pounds/day
- 1997 – 7.3 pounds/day
- 1996 – 10.0 pounds/day
- 1995 – 15.3 pounds/day

From the time the groundwater remediation began operation in November 1990 until start-up of the WPL extraction system in May 1994, the PTA influent concentrations averaged approximately 750 micrograms per liter (µg/l) of total VOCs. Following start-up of the WPL system, the average total VOC concentration increased to greater than 10,000 µg/l, and has steadily decreased to date. The average total VOCs detected in the

PTA influent samples during the report period were approximately 1,416 µg/l. The trend in PTA influent chemistry is illustrated on Figures 4-1 and 4-2.

The PTA effluent concentrations of VOCs were monitored twice monthly until December 1998. During 1999 and 2000, the PTA effluent was sampled and reported on a monthly basis. Analytical testing results for the reporting period are presented in Table A-4 of Appendix A. The treatment system effluent has maintained non-detectable concentrations of VOCs during this reporting period.

5.0 NPBA GROUNDWATER EXTRACTION SYSTEM

5.0 NPBA GROUNDWATER EXTRACTION SYSTEM

Groundwater extraction at the NPBA commenced in November 1990. Nine groundwater extraction wells (CW-1, CW-1A, CW-2, CW-3, CW-4, CW-5, CW-6, CW-7 and CW-7A) pump to the NPBA control building where individual pumping rates are controlled and measured. The groundwater from each well is combined to a common three-inch diameter pipeline, which conducts the water to the groundwater treatment system.

5.1 System Operational Conditions

The nine wells in the NPBA generally operated continuously as shown in Table 5-1 and Figure 5-1. On occasion, records show obviously diminished groundwater extraction volume from an individual well. These periods of interrupted pumping were related to various repairs and maintenance of the system. The most significant maintenance item was the rehabilitation of three wells, due to iron fouling. Iron fouling caused high water level alarms in these wells during parts of the report period due to reduced groundwater extraction rates.

Table 5-1 presents a record of monthly groundwater withdrawals for each extraction well area on-site for the period covered by this report. The NPBA extraction system, during the current report period, removed approximately 10.7 million gallons of groundwater at an average rate of 584,000 gallons per month, or 13.5 gpm. This volume is nearly identical to the withdrawal from the NPBA during last year's report period (13.8 gpm).

Measured groundwater levels for the current report period are presented in Table A-1. The groundwater contour map (Figure 3-1) shows the effect the groundwater extraction system imposed on the water table at the NPBA Area on December 22-23, 1999. The

groundwater contours shown on Figure 3-1 indicate coalescing cones of depression around each of the NPBA collection wells, which aid in preventing of off-site migration of VOCs from this area.

Table 5-2 summarizes measurements of water levels for extraction wells in the NPBA. The table also lists design "pump on" and "pump off" water level elevations. During the December 1999 measurement round, water levels were maintained near the design drawdown levels (within five feet), in all nine wells.

Northern Property Boundary Area Well Rehabilitation

The NPBA wells, pumps, and piping are constantly being negatively impacted by precipitation of iron. Significant declines in groundwater yields have been occurring in well CW-2, CW-4, and CW-7A over the last several years in spite of the regular replacement of pumps and acid cleaning of conveyance piping. As a result of this observation, these wells were rehabilitated in July 1999.

Over the period of July 19 through July 21, 1999, SAIC performed the well rehabilitation on three NPBA wells. Two of the rehabilitated wells (CW-2 and CW-4) are 150 feet in depth, having a 6-inch open rock construction from 48 feet and 63 feet to total depth, respectively. The other well (CW-7A) is constructed of 6-inch stainless screen from 36 feet to 66 feet below ground surface (bgs). All of these wells are constructed in phyllite lithology. Well CW-2 includes a thin zone of quartzitic sandstone at a depth of approximately 130 feet bgs; and well CW-7A terminates in phyllite schist from 61 to 66 feet bgs.

SAIC removed the well pumps/motors and associated piping from the wells. Then the total depth of the well was measured and compared to the well logs to determine if any

sediment accumulation had occurred. CW-2 and CW-7A had only negligible amounts of sediment and CW-4 had approximately a foot of accumulation, none of which was significant enough to affect the well yield. A small obstruction at 75 feet bgs was observed in CW-4. Following the removal of the pump assembly, a brief step-drawdown pumping test was conducted to establish baseline well performance parameters. Turbidity and pH measurements were collected before, and at the end of each step of the pumping tests.

The NPBA wells were treated using approximately 4 gallons per well of hydroxyacetic (glycolic) acid (70 percent solution). The acid was pumped slowly down the well and allowed to remain over night. The following day the wells were injected with water to dislodge mineral scale and iron bacteria from the well screens and the natural formation material surrounding the screens. A water jet was used to inject potable water at high pressure, which also mobilized the acid/water solution and aided in breaking up any encrustation.

Following the water jet and chemical well development, the step-drawdown pumping tests were repeated to measure changes in well efficiency. The results of the pre- and post-rehabilitation tests are provided on Table 5-3. As shown on this table, CW-2 and CW-7A increased their performance by 17 and 25 percent, respectively; whereas no significant change was observed in CW-4 from the rehabilitation efforts.

The water collected during the post-rehabilitation pumping tests had a pH value of approximately 2.5-3 and all collected water was sent to the industrial wastewater treatment plant (IWTP) for treatment and discharge.

Extraction Well Pumps

SAIC replaced several groundwater extraction well pumps and acid cleaned the underground conveyance piping during the report period, which has resulted in the desired maintenance of water levels at the NPBA for several months. Visual observation of the manifold at the NPBA control building confirmed the successful cleaning of conveyance piping leading to the building.

Flow meters, y-strainers, check valves, and other components of the groundwater extraction system are maintained on a twice per month schedule. This maintenance program has successfully kept the system operational.

5.2 Groundwater Chemistry

The dominant VOCs found in groundwater beneath the NPBA are TCE and PCE. Three monitoring wells (MW-10, MW-12, and RW-2) and nine collection wells (CW-1 through CW-7, CW-1A and CW-7A) were sampled at the NPBA during the report period to evaluate the effectiveness of the NPBA groundwater remediation system. The results of laboratory analyses for the monitoring wells and the collection wells are summarized on Tables A-2 and A-3, respectively.

Table 5-4 is a summary comparing 1998 TCE and PCE (the primary detected VOCs) concentrations with 1999 values from NPBA extraction wells and key wells. The concentration of VOCs in the NPBA extraction wells generally decreased from 1998 to 1999 based on the routine December/June sampling data.

Concentrations of TCE in the NPBA key wells are shown on Figure 5-2. The concentration of TCE in these three wells remained fairly constant during the reporting

period, with the exception of the September 1999 detection at MW-10. A sharp decrease in TCE concentration occurred from December 1998 (540 µg/l) to September 1999 (24 µg/l) in MW-10. The March 2000 analytical result represents a return to typical concentration levels (540 µg/l).

Concentrations of TCE in NPBA extraction wells are shown collectively on Figure 5-3. Concentrations of TCE in these wells increased slightly from the December 1999 to June 2000 routine sampling events. In comparison to the previous year the concentration of TCE in these extraction wells remained fairly constant, or slightly lower during this reporting period. Historically since start-up of the NPBA extraction system, a gradual decreasing trend in TCE is generally observed. During the reporting period, the highest concentrations of TCE at the NPBA were present in wells CW-7A and CW-1A located near the northeastern corner of the property.

Historical trends of the four predominant VOCs (TCE, PCE, 1,1,1-TCA, and cis-1,2-DCE) are illustrated for each of the NPBA extraction wells on Figures 5-4 through 5-12. With the exception of CW-6 (Figure 5-10), TCE is the primary contaminant in the NPBA wells. PCE, 1,1,1-TCA and cis-1,2-DCE have historically been found near or below the analytical detection limit in the NPBA wells.

Figure 5-10 illustrates a significant increase in the concentration of PCE at CW-6 during this reporting period. The concentration of PCE was found at or above that of TCE in this well during all sampling events from July 1999 through December 2000. CW-6 is the only NPBA extraction well, in which TCE has not been the dominant VOC during its history of sampling.

6.0 TCA TANK AREA GROUNDWATER EXTRACTION SYSTEM

6.0 TCA TANK AREA GROUNDWATER EXTRACTION SYSTEM

Groundwater extraction was initiated in November 1990 from CW-8 to prevent TCA migration and remove VOCs from the groundwater in this area. Groundwater extraction was initiated in February 1995 from CW-16 to contain and remediate groundwater beneath the degreaser area inside Building 2. Groundwater from these wells is conveyed a distance of approximately 1,000 feet through a 3-inch line to the groundwater treatment system.

Initially, extraction well CW-8 was pumped at a rate higher than necessary to maintain capture. The early goal was to reverse the direction of migration prior to initiation of groundwater pumping planned for the WPL, which would have potentially pulled the western edge of the TCA tank plume further west. Prior to pumping of the WPL, the groundwater treatment plant, which was designed to handle water from the WPL, had excess capacity. Thus, the capacity was utilized to address the TCA tank plume. When the WPL extraction system came on-line, the pumping rate of CW-8 was reduced.

6.1 System Operational Conditions

Extraction wells in the TCA area have generally operated continuously during the report period. Table 5-1 presents a record of monthly groundwater withdrawals from extraction wells CW-8 and CW-16. Approximately 88 million gallons of groundwater were extracted from the TCA Tank Area, averaging approximately 4.9 million gallons per month (111 gpm). The groundwater extraction rate was slightly greater during the previous report period averaging approximately 117 gpm. The recent decrease is due primarily to the shut down of the TCA and WPL extraction wells in October 1999 during a pumping test (see Figure 5-1). The most significant maintenance item was the

rehabilitation of well CW-16, due to reduced groundwater extraction rates observed at this well (see discussion below).

The groundwater contour map (Figure 3-1) shows the effect the groundwater extraction system imposed on the water table at the TCA Area on December 22-23, 1999. Groundwater contours indicate a general area of depression on the groundwater surface in the vicinity of the TCA area as a result of pumping at wells CW-8 and CW-16. The closed 340-foot contour indicates radial flow (capture) toward the TCA extraction wells.

Table 5-2 summarizes measurements of water levels for extraction wells in the TCA Area. The table also lists design "pump on" and "pump off" water level elevations. During the December 1999 measurement round, the observed water levels were within the design drawdown levels for both extraction wells.

Based on the monthly total flow data, the CW-8 daily extraction rates have averaged approximately 120,000 gallons per day (gpd). CW-16 has maintained an average pumping rate during the report period of approximately 41,000 gpd. Pumping rates from CW-8 and CW-16 have averaged approximately 2.4 and 0.75 million gallons per month, respectively, during the reporting period. Again, this groundwater extraction rate was slightly less than the previous reporting period due primarily to the shut down of the TCA and WPL extraction wells in October 1999 during a pumping test.

CW-16 Rehabilitation

On December 29 and 30, 1999 and January 3, 2000, SAIC conducted rehabilitation work on CW-16. Well CW-16 is located within a very busy area inside Building 2 and thus the work was conducted during plant shutdown when manufacturing activities in the area were less than normal. Well CW-16 is a 6-inch diameter, 50-foot deep screened well,

with a sand pack and screened interval extending from 30.5 to 50.5 feet bgs in limestone bedrock. Prior to the rehabilitation work, the average pumping rate had declined by more than 50 percent, and the average specific yield had decreased to approximately 2 gallons/foot.

SAIC measured approximately one-inch of sediment accumulation in the bottom of the well. A brief step-drawdown pumping test was then conducted to determine baseline well performance parameters. Based on the results of the pumping test, the well was capable of maintaining a sustained pumping rate of approximately 13 gpm. Before, during and after the pumping test, water quality parameters were collected. These included pH, specific conductivity, turbidity, dissolved oxygen, and temperature. Prior to the addition of acid, the pH of the groundwater was approximately 7.5.

After completion of the pumping test, SAIC pulled the pump assembly out of the well. Inspection of the pump revealed no indication of mineral deposition or iron bacteria buildup. A borehole video camera was used to look at the inside of the well screen to further indicate the reason for the decreased well yield, and to assist in determining the best approach for the rehabilitation. The borehole camera revealed no significant staining, or buildup inside the well or on the screen. There was minor staining on the well screen at a few zones and some brown colored buildup in the vicinity of 40 feet below grade level. The buildup was of a light and fluffy nature, with an appearance similar to filamentous iron bacteria. Based on these observations, the decision was made to use an acid treatment of the well screen and sand pack.

An acid solution consisting of 15 gallons of muriatic (hydrochloric) acid and 50 gallons of water was gravity fed down the well and then the pump and assembly was replaced. The pH of the well water was measured at 0.005 to 0.39. After approximately 3 hours,

500 gallons of water from CW-16 was removed and treated at the wastewater treatment plant prior to discharge.

Four days later CW-16 was checked for well performance. A pumping test was run and it revealed a significant increase in well yield (approximately 35 - 40 gpm), approaching its original capacity. A comparison of pre- and post-rehabilitation measurements are shown in Table 5-3.

Following the well rehabilitation, the flow meter for CW-16 was cleaned and the calibration checked. This was accomplished by shutting down all the pumping wells and turning off the air-stripping tower pump. CW-16 was then turned on and run for a specific amount of time. The amount of water pumped was measured in the holding tank and divided by the amount of time the pump was on. The calibration check indicated that the flow meter was recording the flow rate properly.

Table 5-2 summarizes measurements of water levels for extraction wells in the TCA Area. The table also lists design "pump on" and "pump off" water level elevations. During the December 1999 measurement round, water levels were maintained within the design-drawdown levels in both wells.

CW-8 and CW-16 are not prone to iron fouling, so twice monthly cleaning of y-strainers is normally sufficient for these wells. CW-16 had experienced declines in groundwater yields over the past several years. However, as described above, the rehabilitation of this well significantly increased its production and VOC removal rate.

6.2 Groundwater Chemistry

The dominant VOCs found in groundwater beneath the TCA Tank Area are TCE, PCE, 1,1,1-Trichloroethane (TCA), and cis-1,2-Dichloroethene (DCE). This area is the site of a past TCA spill, which resulted in initially high concentrations of TCA. Groundwater extraction and treatment initiated at CW-8 resulted in a rapid decrease in TCA concentrations near the release, with adjacent monitoring wells exhibiting slow declines. The cone of groundwater depression resulting from the active collection wells has resulted in intercepting existing TCE (and PCE) sources. TCE is now the dominant VOC in groundwater beneath this area.

Six monitoring wells (MW-32S&D, MW-34S&D, MW-35D, and MW-54) and two collection wells (CW-8 and CW-16) were sampled at the TCA tank area during the reporting period to evaluate the effectiveness of the groundwater remediation system. The results of laboratory analyses for the monitoring wells and the collection wells are summarized on Tables A-2 and A-3, respectively. Table 6-1 summarizes concentrations of the four dominant VOCs for the TCA area wells and compares last year's and this year's values. Concentrations of TCA, TCE, PCE and DCE show fluctuating concentration trends from 1998 to 1999 in the TCA tank monitoring wells (Figure 6-1). Data for one well (MW-32S) suggests an increasing concentration trend over the past two years.

Figures 6-2 and 6-3 show concentrations of dominant VOCs in TCA tank area extraction wells (CW-8 and CW-16, respectively) since start of pumping. Concentrations of VOCs in these wells increased slightly from the December 1998 to December 1999 routine sampling events. The one exception to this is TCA, which was not detected in either collection well sample during the December 1999 event.

General groundwater quality data for the collection wells in this area (CW-8 and CW-16) indicate that TCE concentrations in extracted groundwater decreased steadily and consistently from December 1996 through December 1999; but has since fluctuated between 300 and 700 µg/L) . The dominant VOC present at CW-8 has clearly shifted from 1,1,1-TCA to TCE. In 1990, 1,1,1-TCA accounted for 80 to 85 percent of the TVOC concentration at this well. In 1999, 1,1,1-TCA accounted for 0 percent of the TVOC concentration (see Table 6-1). Currently (January 2001), TCE accounts for 75 and 76 percent of the TVOC concentration in wells CW-8 and CW-16, respectively.

In summary, a review of groundwater quality data from the five monitoring wells and the two active groundwater collection wells, generally indicates improving but fluctuating groundwater quality beneath the TCA Tank Area. Unlike the other surrounding monitoring wells, data for MW-32S exhibits a slight increasing concentration trend in TCE over the past two years. In general, data from the TCA tank area indicate that TCE is the dominant VOC present in this area.

7.0 WEST PARKING LOT GROUNDWATER EXTRACTION SYSTEM

7.0 WEST PARKING LOT GROUNDWATER EXTRACTION SYSTEM

Three groundwater extraction wells (CW-9, CW-13, and CW-17) operate in the WPL Area of the Harley-Davidson property. One additional extraction well (CW-15A) is located near the northwest corner of Building 4. These four wells are referred to as the WPL wells. The purpose of the WPL groundwater extraction system is to prevent off-site migration of groundwater containing dissolved VOCs and to control the migration of VOCs in a plume located near the northwest corner of Building 4. Extracted groundwater from the WPL wells is via underground piping to the groundwater treatment system. The wells are individually piped to the groundwater treatment plant so that flow control, flow measurements and water samples may be obtained for each well at this central location.

Extraction wells CW-9, CW-13, and CW-15A began operation in May 1994, and CW-17 began operating in September 1995. Well CW-17 was a replacement extraction well for CW-14. CW-14 operated as one of the WPL extraction wells between June 1994 and March 1995, when it stopped operating due to excessive sediment buildup in the well.

7.1 System Operational Conditions

Approximately 113 million gallons of groundwater were extracted from the WPL Area during the report period (see Table 5-1), averaging approximately 6.3 million gallons per month (143 gpm). The groundwater extraction rate recorded during the previous report period was slightly greater at approximately 159 gpm. The recent decline in pumping was due primarily to shut down of the WPL and TCA extraction wells in October 1999 during a pumping test (see Figure 5-1).

The groundwater contour map (Figure 3-1) shows the effect the groundwater extraction system imposed on the water table at the WPL Area on December 22-23, 1999. Groundwater contours indicate a general area of depression on the groundwater surface surrounding the WPL area which demonstrates capture of local groundwater and prevention of off-site migration. The completeness of capture in the southwestern corner of the WPL is being reviewed as part of the ongoing RI/FS.

Table 5-2 summarizes measurements of water levels for extraction wells in the WPL. The table also lists design "pump on" and "pump off" water level elevations. During the December 1999 measurement round, water levels were maintained within or near the design-drawdown levels for all 4 wells.

The WPL wells operated as designed throughout the report period with few exceptions. The only required routine maintenance on the WPL wells is twice monthly cleaning of the y-strainers. The current maintenance program has maintained reliable operation of extraction wells CW-9, CW-13, CW-15A, and CW-17.

7.2 Groundwater Chemistry

TCE, PCE, DCE, and TCA are the dominant VOCs present in groundwater beneath this area. Nine monitoring wells (MW-5, MW-6, MW-37S&D, MW-38S&D, MW-39D, and MW-51S&D) and four collection wells (CW-9, CW-13, CW-15A, and CW-17) were sampled in the WPL area during the report period. The results of laboratory analyses for the monitoring wells and the collection wells are summarized on Tables A-2 and A-3, respectively. Concentrations of the most prevalent VOC in this area (TCE) is graphed for monitoring wells and extraction wells on Figures 7-1 and 7-2, respectively. Concentrations of TCE in the collection wells exhibit a fluctuating concentration trend, with a slight increase from the December 1999 to June 2000 routine sampling events.

Between June 2000 and December 2000, three of the four wells (excluding CW-9) return to a decreasing concentration trend.

Table 7-1 summarizes concentrations of the four dominant VOCs for the WPL wells, and compares last year and this year's values. TCE was the dominant detected VOC in all of the WPL extraction wells with the exception of CW-9 (PCE = 48 percent). TCE represents 43 to 55 percent of the total volatile organic compounds (TVOCs) in each of the other three WPL extraction wells. TCA remains a significant component (37 percent) of the TVOCs measured in the NB4 extraction well (CW-15A).

Figures 7-3 through 7-6 show concentrations of dominant VOCs in WPL extraction wells since start-up of pumping. TCE is the dominant VOC recovered by three of the four collection wells in this area (CW-13, CW-15A, and CW-17). Each of these three wells exhibits a relatively consistent decreasing trend in TCE concentration. The highest concentrations of TCE (and VOCs) are present in well CW-15A, located near the northern end of Building No. 4. CW-15A also continues to exhibit elevated, yet decreasing concentrations of 1,1,1-TCA. PCE continues to remain the dominant VOC found at CW-9 (see Figure 7-3).

In comparison to the previous year, the concentration of VOCs in three of these extraction wells (CW-9, CW-13, and CW-15A) exhibited fluctuating concentration trends but remained fairly consistent. Extraction well CW-17 exhibited slightly higher concentrations of VOCs, compared to last year. Historically since start-up of the NPBA extraction system, an initial increase, followed by a gradual decreasing trend in TCE is generally observed for each of the extraction wells.

8.0 SOUTHERN PROPERTY BOUNDARY AREA WELL MONITORING

8.0 SOUTHERN PROPERTY BOUNDARY AREA WELL MONITORING

Eleven wells (MW-40S&D, MW-41S&D, MW-42S/M/D, MW-43S&D, and MW-64S&D) located near the Southern Property Boundary Area (SPBA) were sampled during the reporting period. These wells were sampled as part of a site-wide sampling event for the RI/FS effort. MW-41S&D and MW-43S&D are part of the original key well sampling program. Additionally, CW-10 and CW-11 are part of the key well sampling program, but were not sampled this year because of the RI/FS activities.

The dominant VOC detected in groundwater beneath this area is TCE, followed by lesser concentrations of PCE, and some TCA. The analytical results are discussed below and summarized on Table A-2. Concentrations of the most prevalent VOC in this area (TCE) are graphed and included as Figure 8-1. This illustration shows the relative concentrations of TCE in selected SPBA wells since 1990.

9.0 EASTERN AREA WELL MONITORING

9.0 EASTERN AREA WELL MONITORING

As part of the key well sampling program, two wells are routinely sampled to monitor groundwater quality near the eastern portion of the Harley-Davidson property. Wells MW-2 and MW-17 were sampled during the September 1999 and April 2000 events during this reporting period. The dominant VOCs detected in groundwater beneath this area are TCE and PCE. The analytical results are discussed below and summarized on Table A-2. Concentrations of TCE are graphed and included as Figure 9-1, showing the relative concentrations of the eastern area key wells. A brief summary of the analytical results is presented below:

- MW-2 is located next to a former cyanide disposal area near the eastern site property boundary. PCE and TCE were the only VOCs detected in the MW-2 sample. Concentrations of TCE decreased 35 percent from the September 1999 to March 2000 sampling (from 57 µg/l to 37 µg/l). However, the PCE concentrations increased 33 percent during this same time period (from 98 µg/l to 130 µg/l). Overall, TCE and PCE concentrations have exhibited a generally consistent decreasing trend over the last few years of monitoring.

- Monitoring well MW-17 is located in the east-central portion of the site, south of the landfill. The only VOC detected in the September 1999 and March 2000 samples from this location was TCE. Concentrations of TCE decreased 10 percent from the September 1999 to April 2000 sampling (from 83 to 75 µg/l). Although a slight increase in TCE was observed from the fall 1998 to the September 1999 sampling, TCE concentrations have

exhibited a relatively consistent decreasing concentration trend since it was initially detected at a maximum concentration of 254 µg/l in 1987.

10.0 OFF-SITE GROUNDWATER MONITORING

10.0 OFF-SITE GROUNDWATER MONITORING

A quarterly sampling program of off-site groundwater supplies adjacent to and downgradient of the Harley-Davidson property was initiated in April 1988. During this report period, sampling occurred in September 1999, December 1999, March 2000, June 2000, September 2000, and December 2000. Four groundwater/surface water locations, designated "RW" for a residential well and "S" for a spring sample, were included in this sampling program during the report period:

- RW-4 - Folk residence.
- RW-5 - Giambalvo Pontiac
- S-6 - Hollinger spring.
- S-7 - Wilhide spring.

Sampling locations RW-4, S-6, and S-7 are sampled routinely on a quarterly basis. Well RW-5 (Giambalvo Pontiac) is no longer utilized as a water supply well, and was only sampled during September 1999 and March 2000 as part of the ongoing RI/FS activities. Harley-Davidson connected Giambalvo Pontiac to the city water supply in January 1999. The RW-5 data summary is provided in Table A-2, of Appendix A.

Groundwater sampling locations RW-4, S-6, and S-7 are located to the north of the Harley-Davidson property as shown on Figure 1-2. A complete description of baseline sampling of residential wells is contained in the R.E. Wright Environmental, Inc. report, entitled "Report of Investigations in the NPBA, TCA tank, and containment areas of the Harley-Davidson, Inc. York facility," dated August 1988. Concentrations of the most prevalent VOC (when detected) in this area (TCE) are graphed and included as Figure 10-1, showing the relative concentrations of the off-site locations.

During the reporting period, RW-4 (residential well) was sampled directly from the tap within the residence. Grab samples were collected directly from springs S-6 and S-7, which are located on residential properties. The off-site samples were analyzed for VOCs and free and total cyanide. Analytical results for these three locations are presented in Table A-5 of Appendix A. A summary of the sampling results from all four off-site locations is provided below:

- VOCs and cyanide were not detected during any of the sampling events in this reporting period for RW-4 (Folk Residence). Total cyanide was detected previously in RW-4 in 1993. All tested compounds in this well remain well below the EPA drinking water maximum contaminant level (MCL).

- TCE was detected during the September 1999 and March 2000 sampling events at RW-5 (Giambalvo Pontiac). The detected concentration of TCE was 4 µg/l during both sampling events. TCE had previously been detected at a maximum concentration of 57 µg/l during the 1995-reporting period (Figure 10-1). This well is no longer sampled quarterly as part of the off-site groundwater supply monitoring program since Giambalvo Pontiac was connected to the city water supply in January 1999.

- Cyanide was not detected during any of the sampling events in this reporting period for S-6 (Tate Residence). Cyanide was previously detected in S-6 at 13 µg/l in 1992. The concentration remains well below the MCL of 200 µg/l. Chloroform was detected during all six sampling events in S-6, ranging from 4.1 µg/l to 6.6 µg/l. Chloroform has been

consistently detected at similar concentrations in S-6 during every sampling event since September 1995, but levels remain well below the MCL of 100 µg/l. No other VOCs were detected at this location.

- Chloroform was detected during all six sampling rounds in S-7 (Hermann Residence), ranging from 2.2 to 3.1 µg/l. Chloroform has consistently been detected in S-7 since June 1997, with the exception of March 1998. Levels have remained well below the MCL of 100 µg/l. No other VOCs were detected at this location during the reporting period. Cyanide was not detected during any of the sampling events in this reporting period. Although cyanide has been detected in previous sampling events in S-7, the concentrations have remained well below the MCL of 200 µg/l.

A trip blank sample accompanied each set of quarterly off-site samples as part of the quality control procedures. VOCs were not detected in any of trip blanks.

11.0 SUMMARY

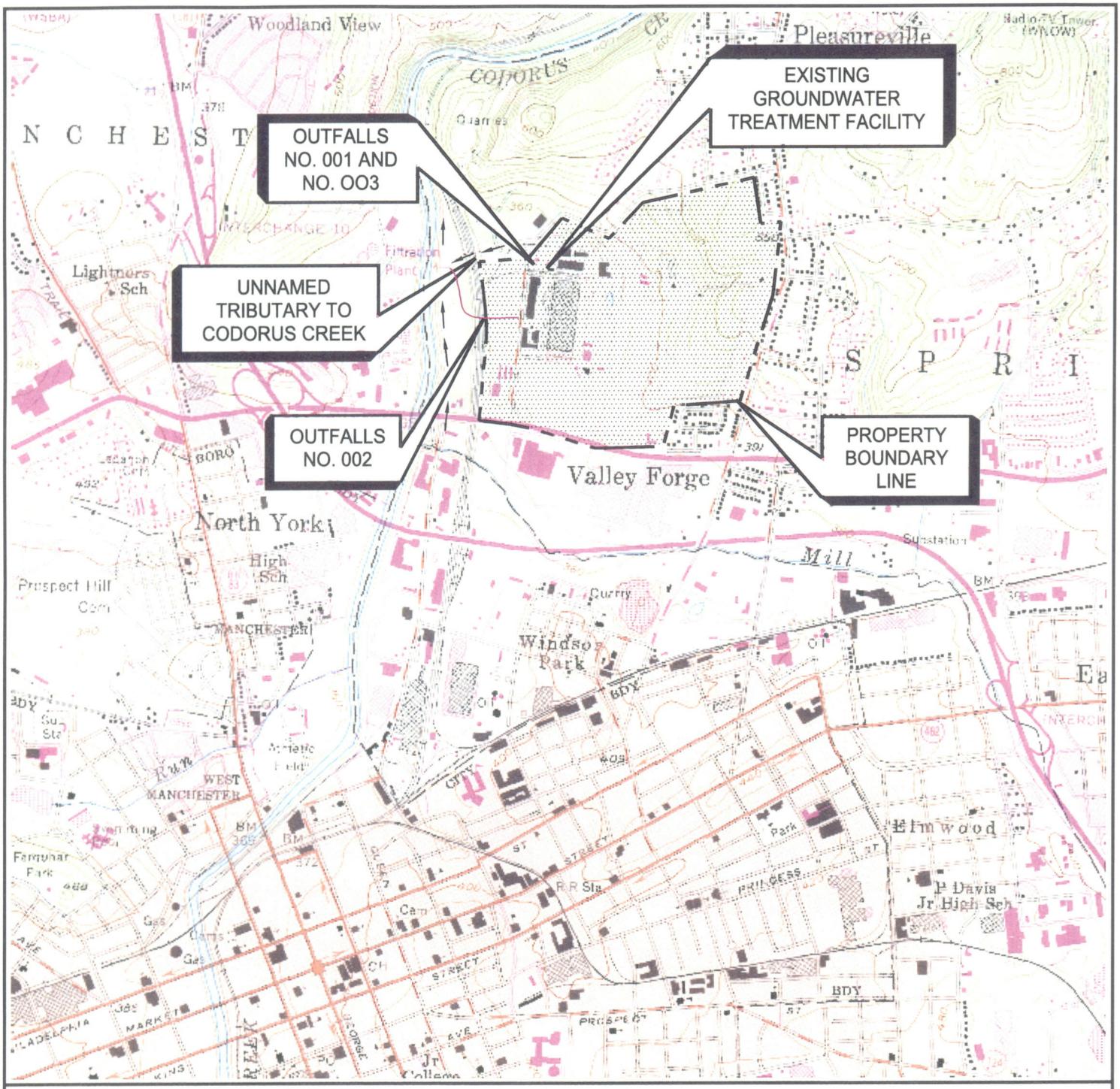
11.0 SUMMARY

Operation of extraction wells in the NPBA resulted in overlapping cones of depression resulting in a trough in the groundwater table. The trough acts as a barrier to groundwater flow, thereby preventing off-site migration. Removal of groundwater from extraction wells CW-8 and CW-16 developed a cone of depression in the TCA Tank Area, and removed significant quantities of VOCs. Similarly, three extraction wells were operated in the WPL, which removed significant amounts of VOCs and restricted off-site migration of groundwater. One additional extraction well, operating next to the WPL (CW-15A), also successfully removed VOC-containing groundwater at the former degreaser location in the North Building 4 (NB4) Area. Total VOC concentrations of the treatment system influent have steadily declined since pumping was initiated at the WPL in May 1994.

The current bimonthly preventative maintenance program has pro-actively facilitated continuous operation of the groundwater extraction and treatment systems with few exceptions during the report period.

The current groundwater monitoring program involves measuring groundwater levels and sampling/analyzing onsite key wells and off-site locations. The current monitoring provides sufficient data to assess the effectiveness of the collection and treatment systems. The key well program should be reviewed after completion of the RI/FS, and potentially modified, considering new data.

FIGURES



NOTE: BASE MAP FROM THE YORK PA., USGS 7 1/2 MIN TOPOGRAPHIC QUADRANGLE (PR 1990).

2000' 0 2000'

SCALE IN FEET

N

PENNSYLVANIA

QUADRANGLE LOCATION

HARLEY-DAVIDSON MOTOR COMPANY
YORK FACILITY

SITE LOCATION MAP

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date 12/02/99	date 10-3-01	date 10-3-01	
job no. 01-1408-00-1618-101		file no. 01618-007-A	

SAIC Science Applications International Corporation
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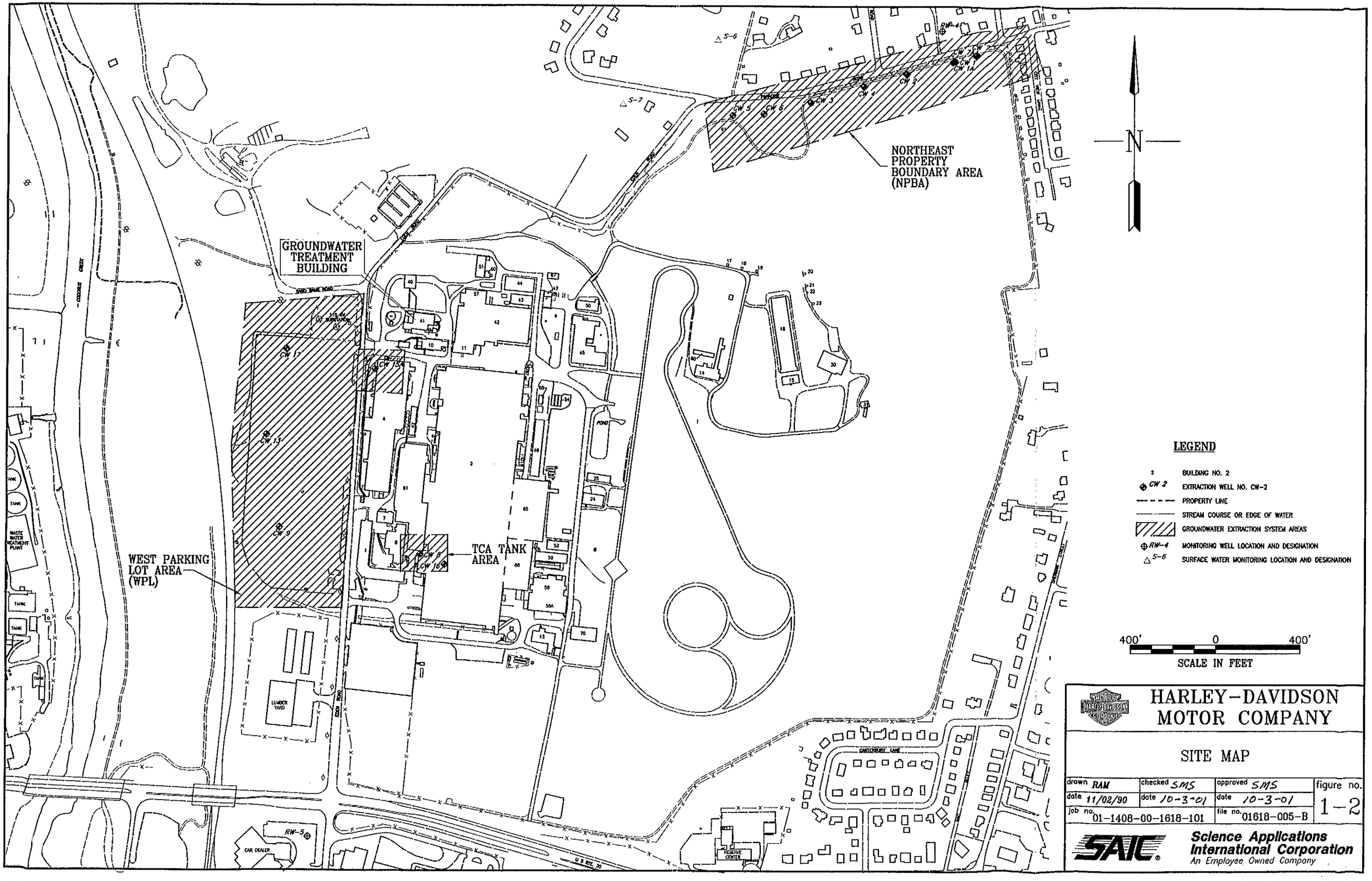

HARLEY-DAVIDSON MOTOR COMPANY

SITE MAP

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date 11/02/90	date 10-3-01	date 10-3-01	
job no. 01-1408-00-1618-101		file no. 01618-005-B	

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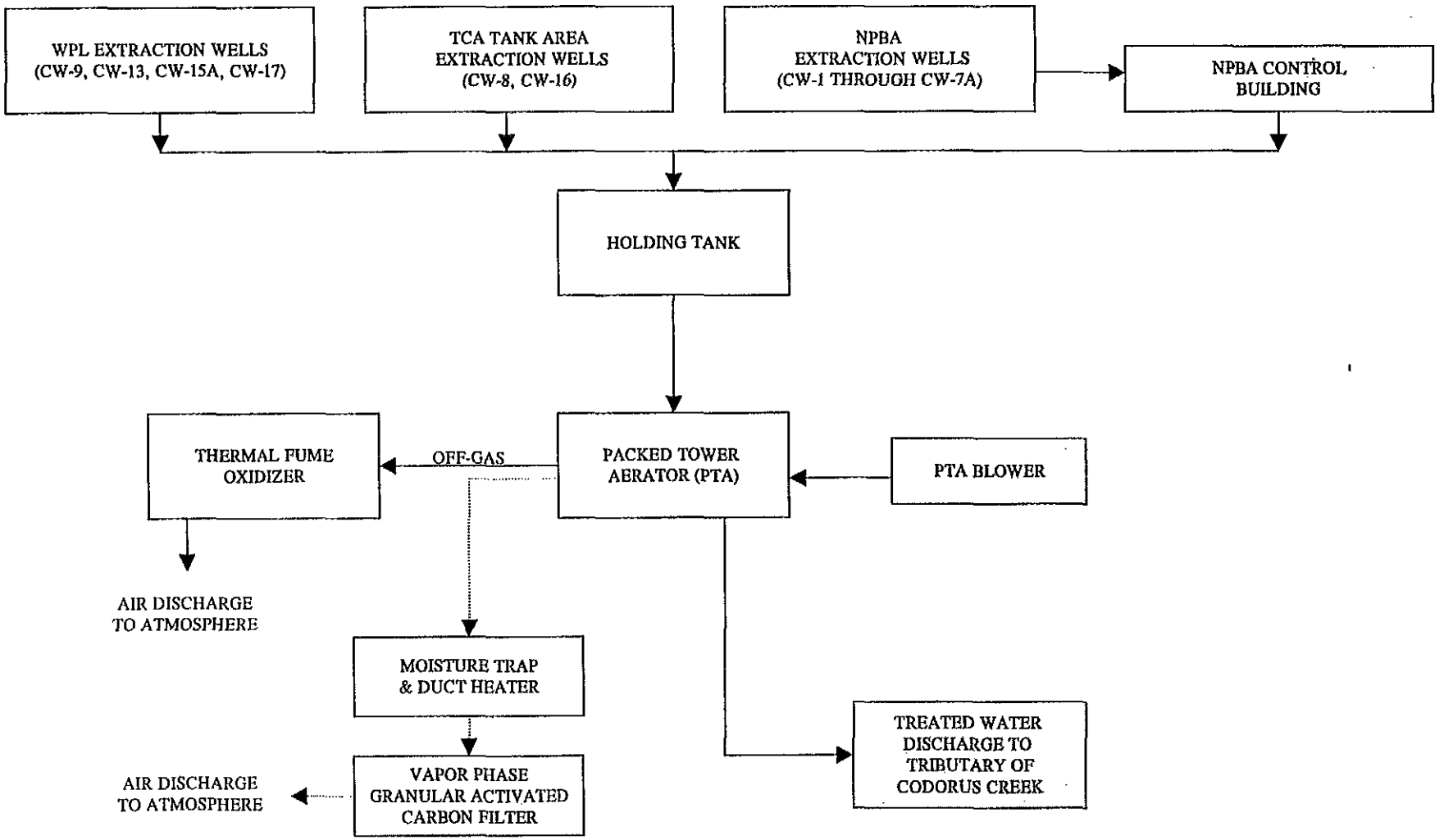
FIGURE 1-3
GROUNDWATER TREATMENT SYSTEM
Harley-Davidson Motor Company



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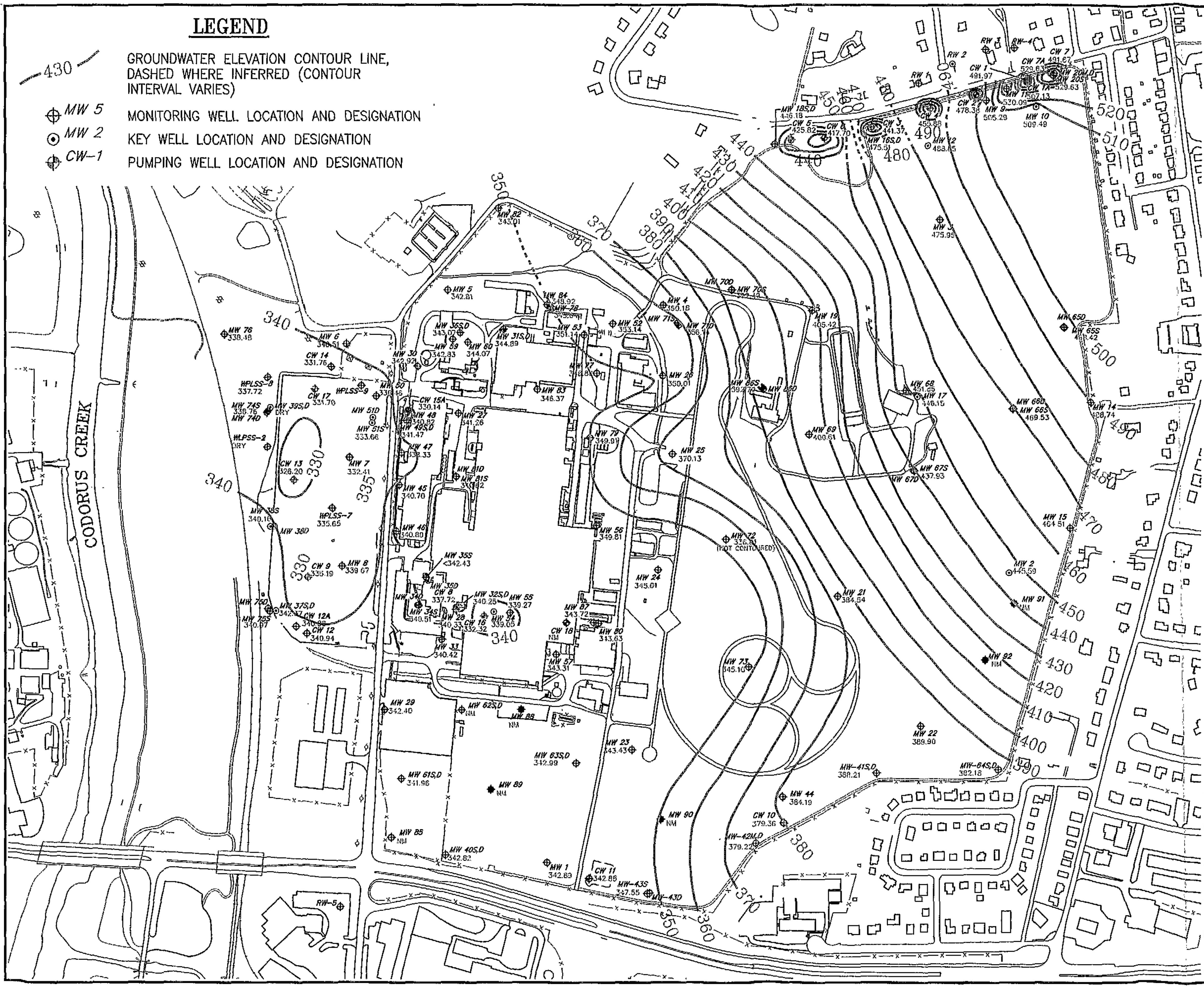

12/22-23/99 Groundwater Surface Elevations & Approximate Daily Pumping Volumes From "CW" Wells Harley-Davidson Motor Company				
Well ID	Groundwater Extraction (gallons*)	12/22-23/99 Water Level (ft AMSL)	Well ID	12/22-23/99 Water Level (ft AMSL)
CW-1	4,454	491.97	MW-38S	340.16
CW-1A	23	507.13	MW-39S	N.M.
CW-2	1	478.38	MW-40S	342.62
CW-3	5,394	441.37	MW-41S	388.21
CW-4	3,925	455.88	MW-42S	379.22
CW-5	2,378	425.82	MW-43S	347.55
CW-6	6,550	417.70	MW-44	384.19
CW-7	632	491.67	MW-45	340.70
CW-7A	1	529.63	MW-46	340.80
CW-8	147,000	337.72	MW-47	338.33
CW-9	52,722	335.19	MW-48	340.82
CW-10	N.O.	379.36	MW-49S	341.47
CW-11	N.O.	342.88	MW-50S	338.48
CW-12	0	340.94	MW-51S	333.66
CW-12A	N.O.	340.88	MW-52	353.14
CW-13	91,064	328.20	MW-53	351.14
CW-14	N.O.	331.76	MW-54	339.05
CW-15	N.O.	339.01	MW-55	339.27
CW-15A	4,793	330.14	MW-56	349.81
CW-16	16,775	332.32	MW-57	343.31
CW-17	74,289	331.70	MW-59	342.83
CW-18	N.O.	N.M.	MW-60	344.07
MW-1		342.89	MW-61S	341.96
MW-2		445.59	MW-62S	N.M.
MW-3		475.95	MW-63S	342.99
MW-4		350.18	MW-64S	382.18
MW-5		342.81	MW-65S	498.42
MW-6		340.51	MW-66S	469.53
MW-7		332.41	MW-67S	437.93
MW-8		339.67	MW-68	451.88
MW-9		505.29	MW-69	400.61
MW-10		509.49	MW-70S	392.42
MW-11		530.09	MW-71S	356.14
MW-12		466.65	MW-72	336.01
MW-14		468.74	MW-73	345.10
MW-15		464.51	MW-74S	338.76
MW-16S		475.51	MW-75S	340.97
MW-17		446.15	MW-76	338.48
MW-18S		446.18	MW-77	348.88
MW-19		405.42	MW-78	348.04
MW-20S		529.63	MW-79	349.91
MW-21		384.54	MW-80	343.63
MW-22		389.90	MW-81S	340.62
MW-23		343.43	MW-82	343.01
MW-24		345.01	MW-83	348.37
MW-25		370.13	MW-84	348.92
MW-26		350.01	MW-85	N.M.
MW-27		341.26	MW-86S	392.79
MW-28		340.33	MW-87	343.72
MW-29		342.40	MW-88	N.M.
MW-30		342.92	MW-89	N.M.
MW-31S		344.89	MW-90	N.M.
MW-32S		340.25	MW-91	N.M.
MW-33		340.42	MW-92	N.M.
MW-34S		340.51	HPL-SS-2	N.M.
MW-35S		N.M.	HPL-SS-7	335.65
MW-36S		343.07	HPL-SS-8	337.72
MW-37S		342.37		

Notes:
* - Groundwater extraction values were recorded on 12/22/99.
N.O. - Not Operational
N.M. - Not Measured
ft. AMSL - feet Above Mean Sea Level (AMSL)

HARLEY-DAVIDSON MOTOR COMPANY

GROUNDWATER ELEVATION CONTOUR MAP - DECEMBER 22, 23, 1999

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date 12/15/00	date 10-3-01	date 10-3-01	3-1
job no. 01-1633-00-1671-000		file no. 01671-001-B	

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Figure 4-1
Record of Tower Influent Chemistry
Total VOC Concentrations
Start-up through December 31, 2000

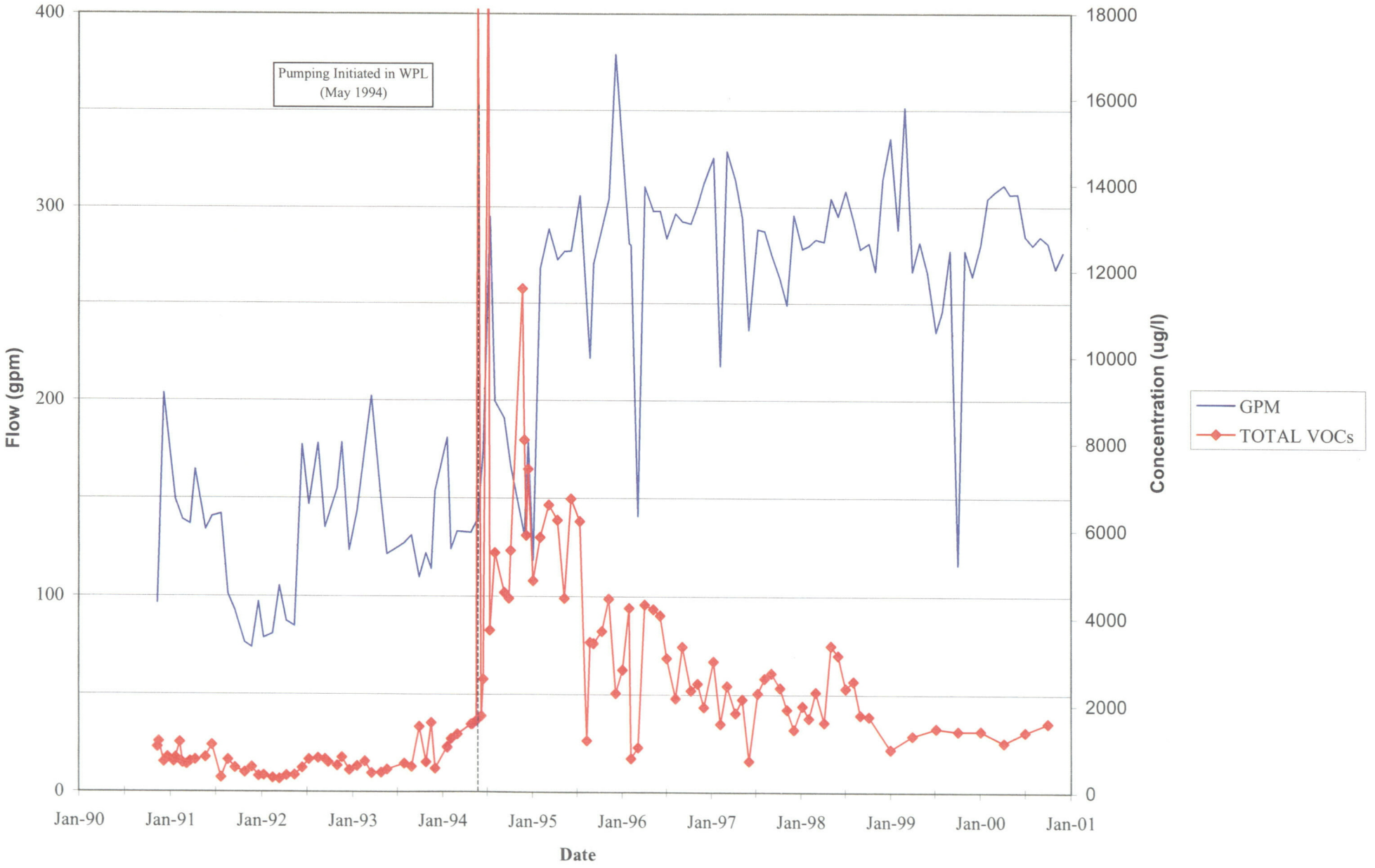

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Figure 4-2
Record of Tower Influent Chemistry
Individual VOC Concentrations
Start-up through December 31, 2000

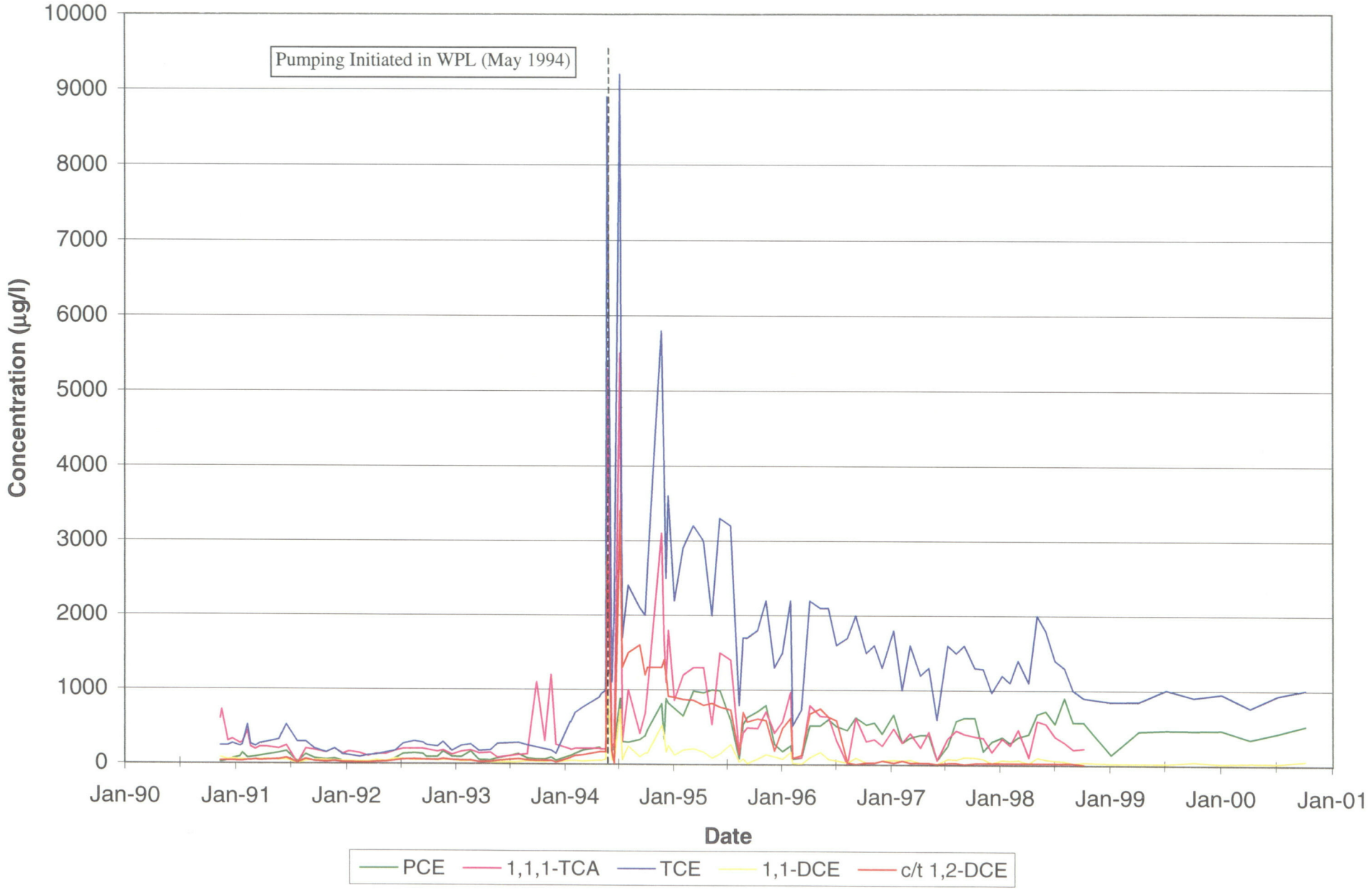

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Figure 5-1

Groundwater Withdrawals

Gallons Per Month for Each Extraction Area

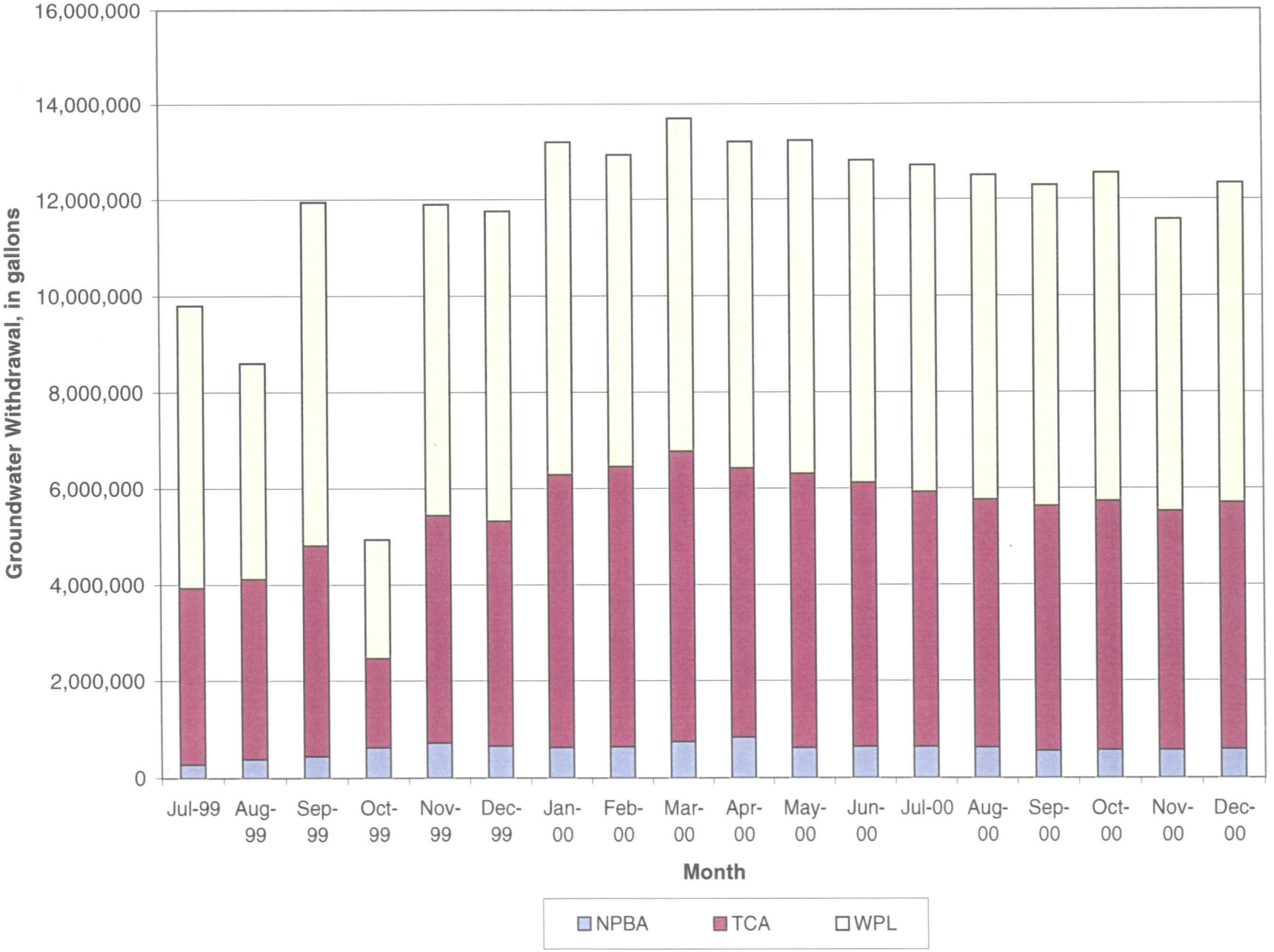

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Figure 5-2
TCE in NPBA Key Monitoring Wells
Harley-Davidson Motor Company

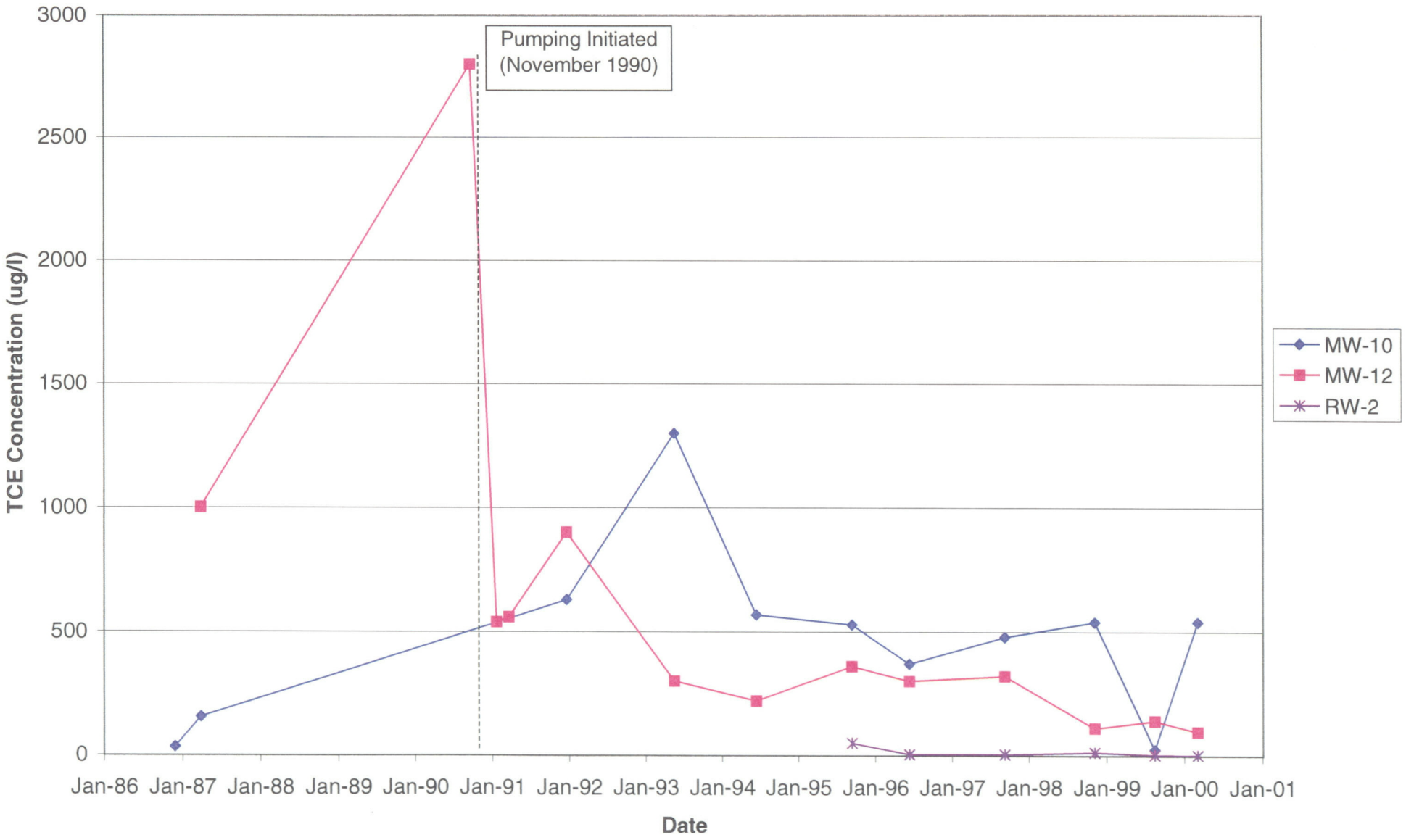

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Figure 5-3
TCE in NPBA Collection Wells
Harley-Davidson Motor Company

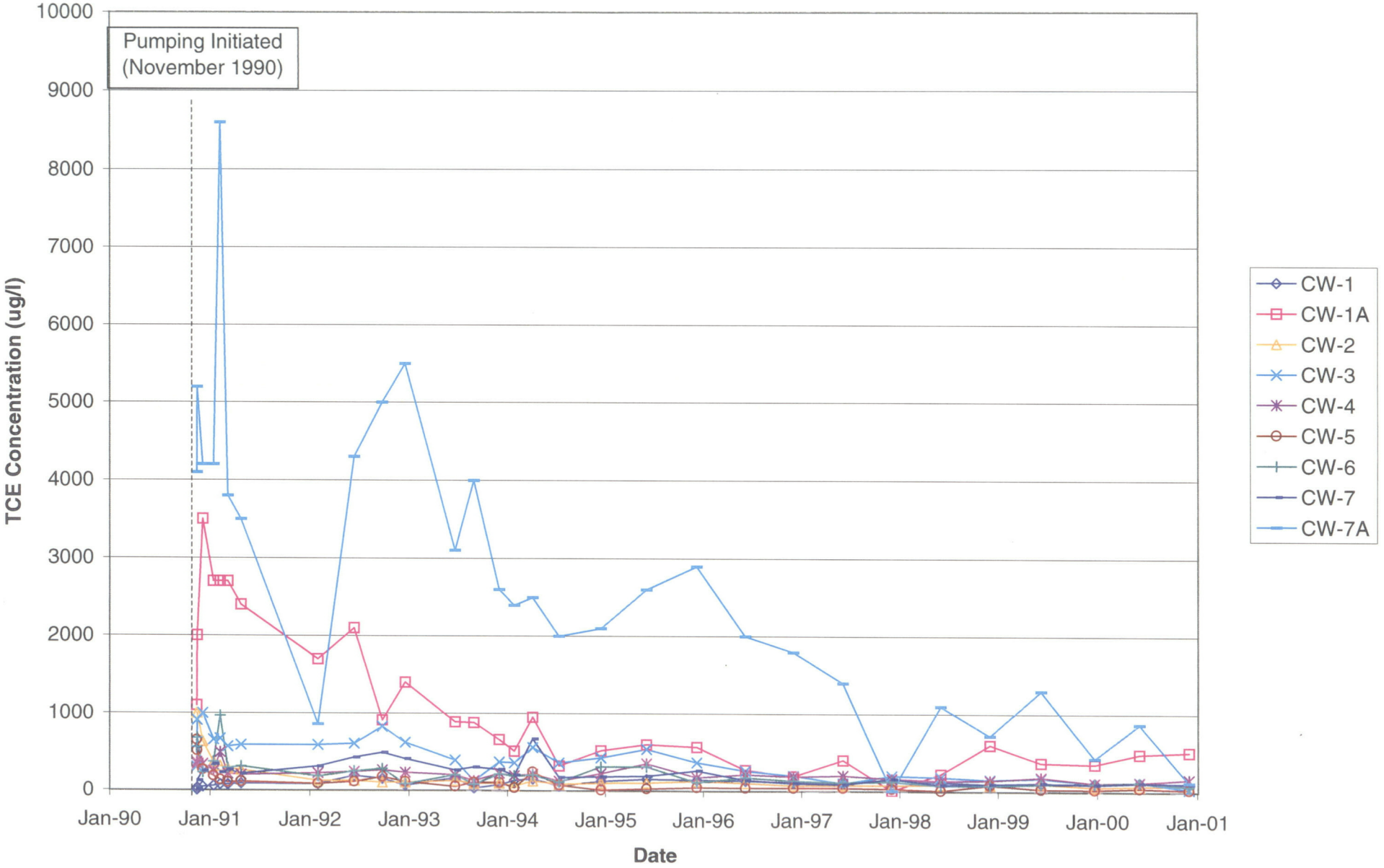

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Figure 5-4

Predominant VOC Concentrations
Extraction Well CW-1

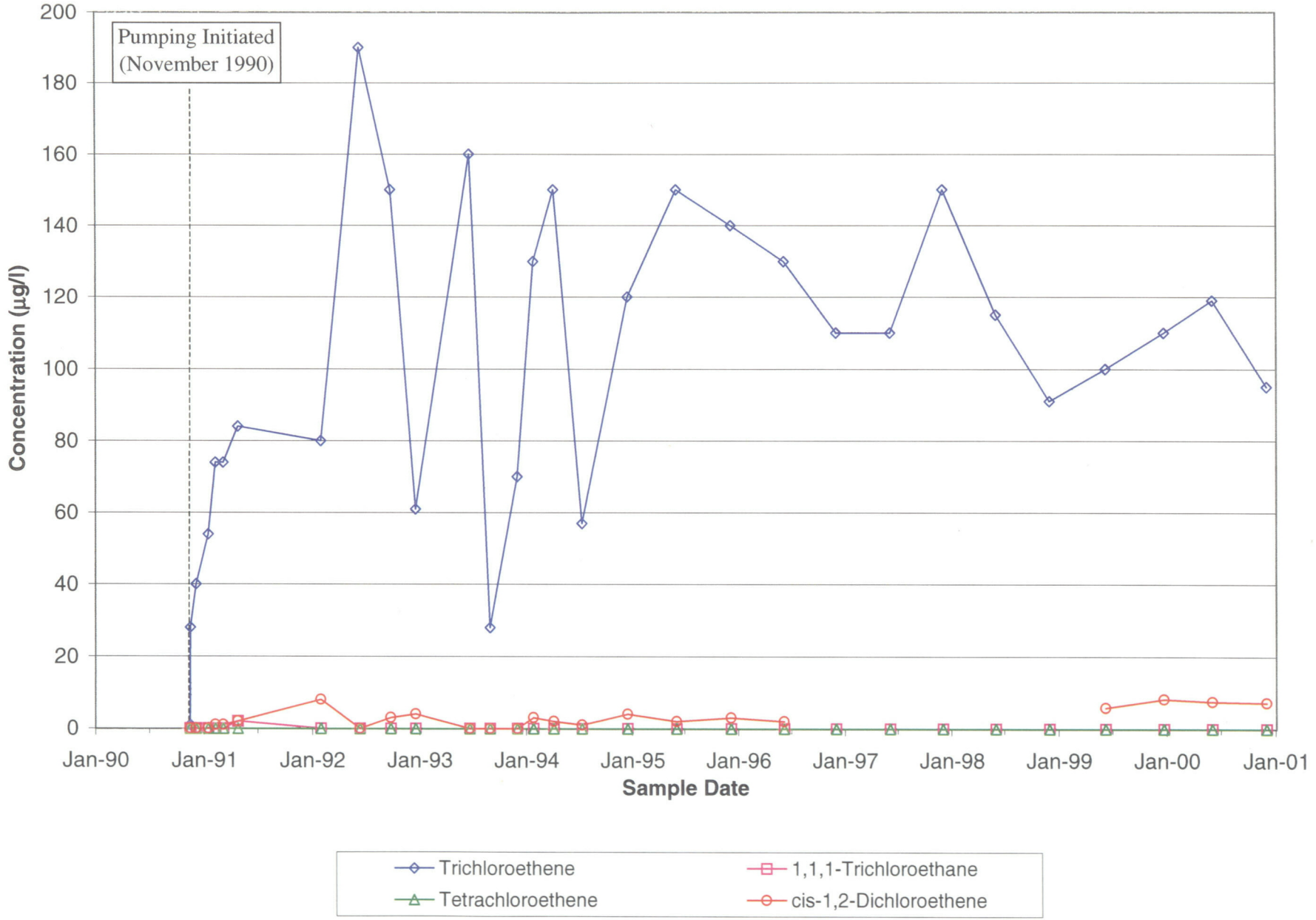

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Figure 5-5

Predominant VOC Concentrations
Extraction Well CW-1A

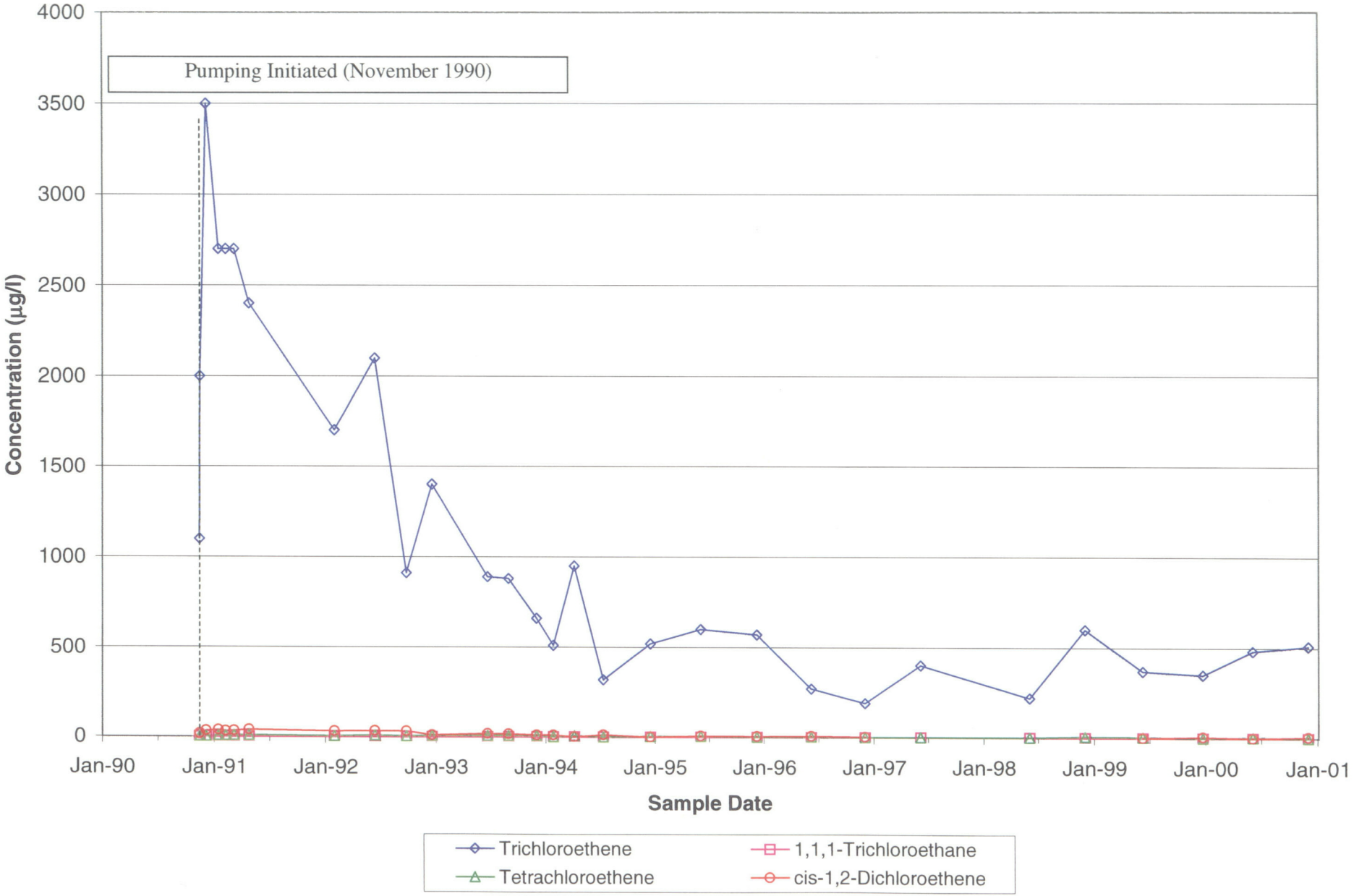

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Figure 5-6
Predominant VOC Concentrations
Extraction Well CW-2

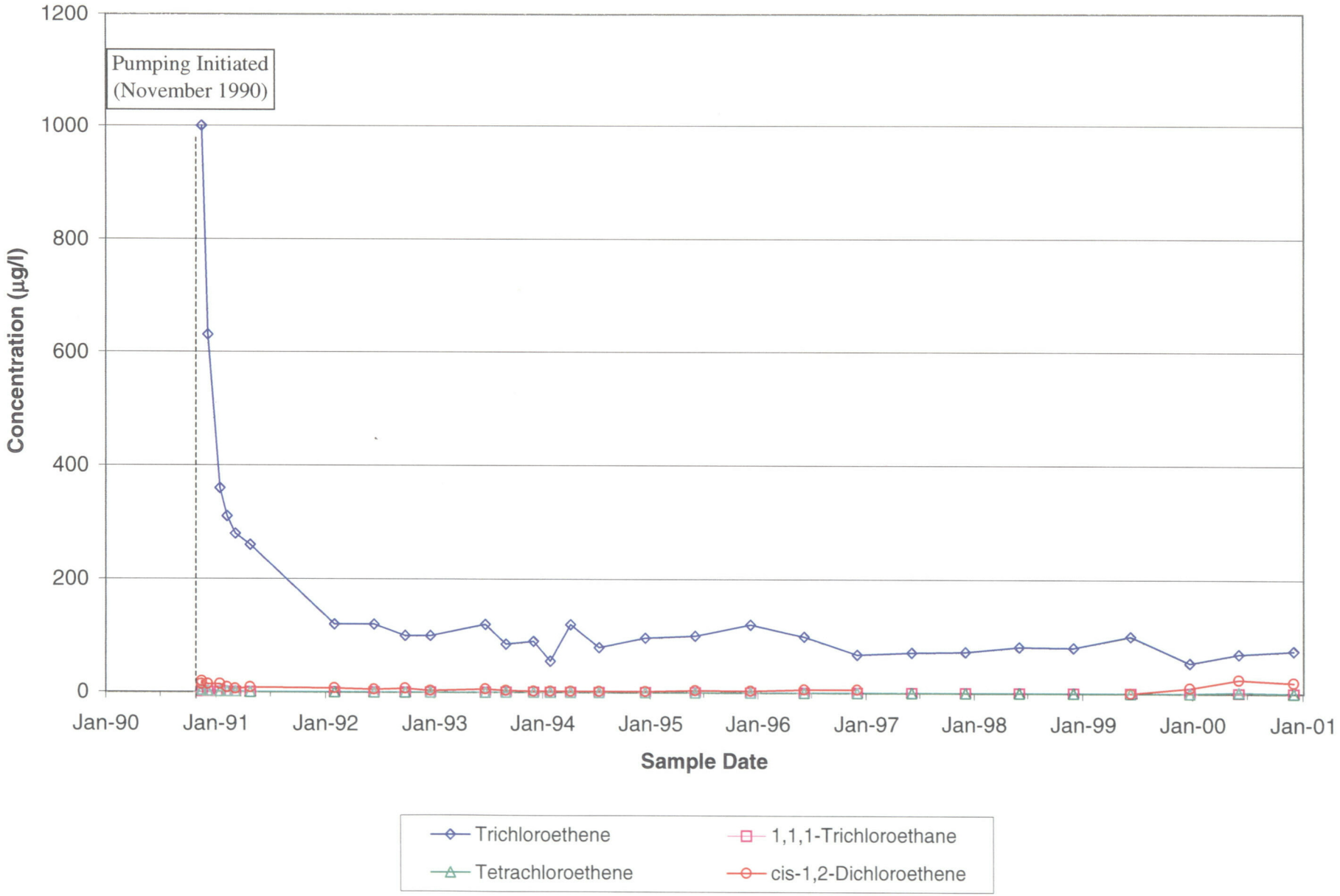

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Figure 5-7
Predominant VOC Concentrations
Extraction Well CW-3

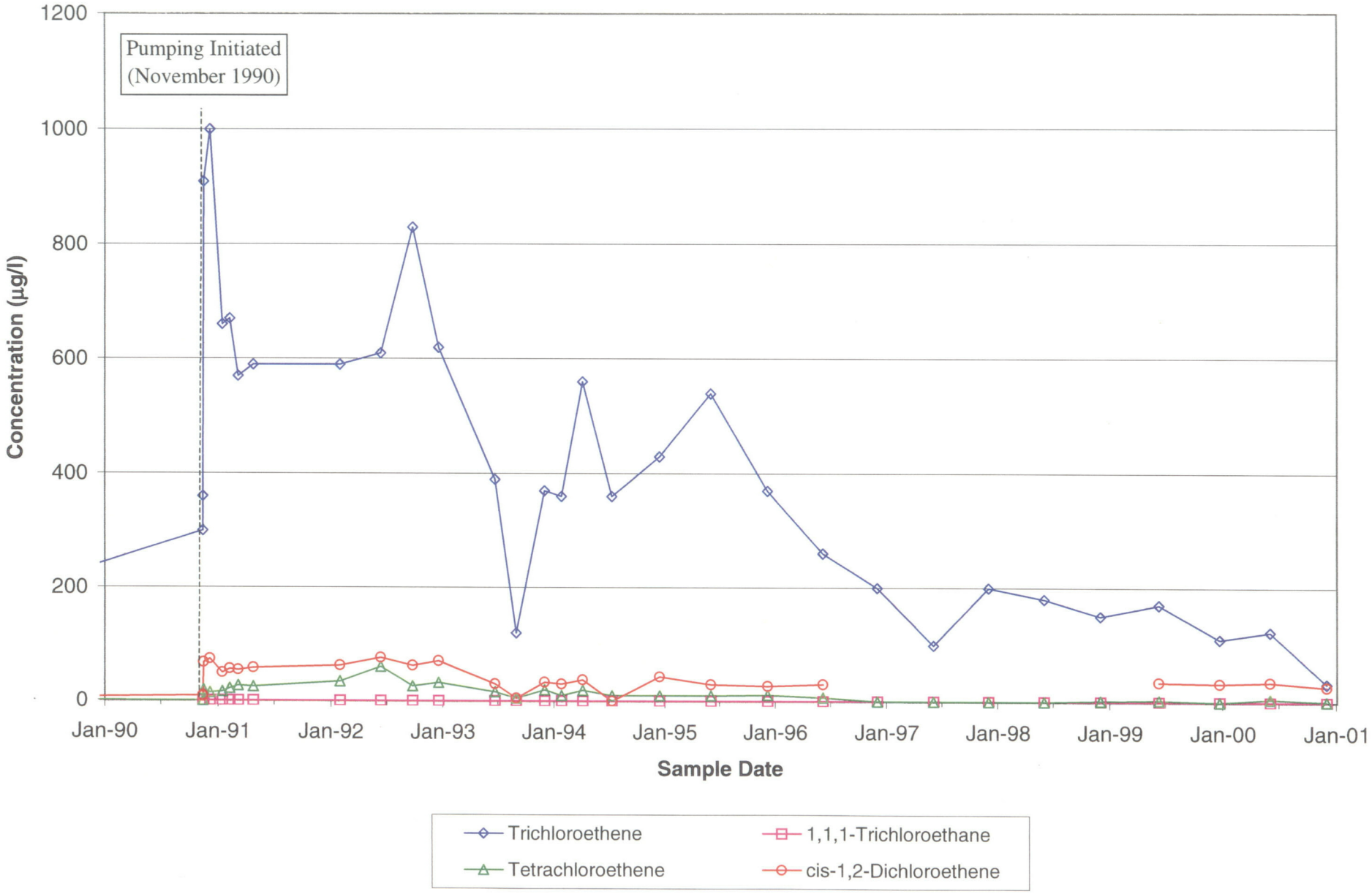

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Figure 5-8

Predominant VOC Concentrations
Extraction Well CW-4

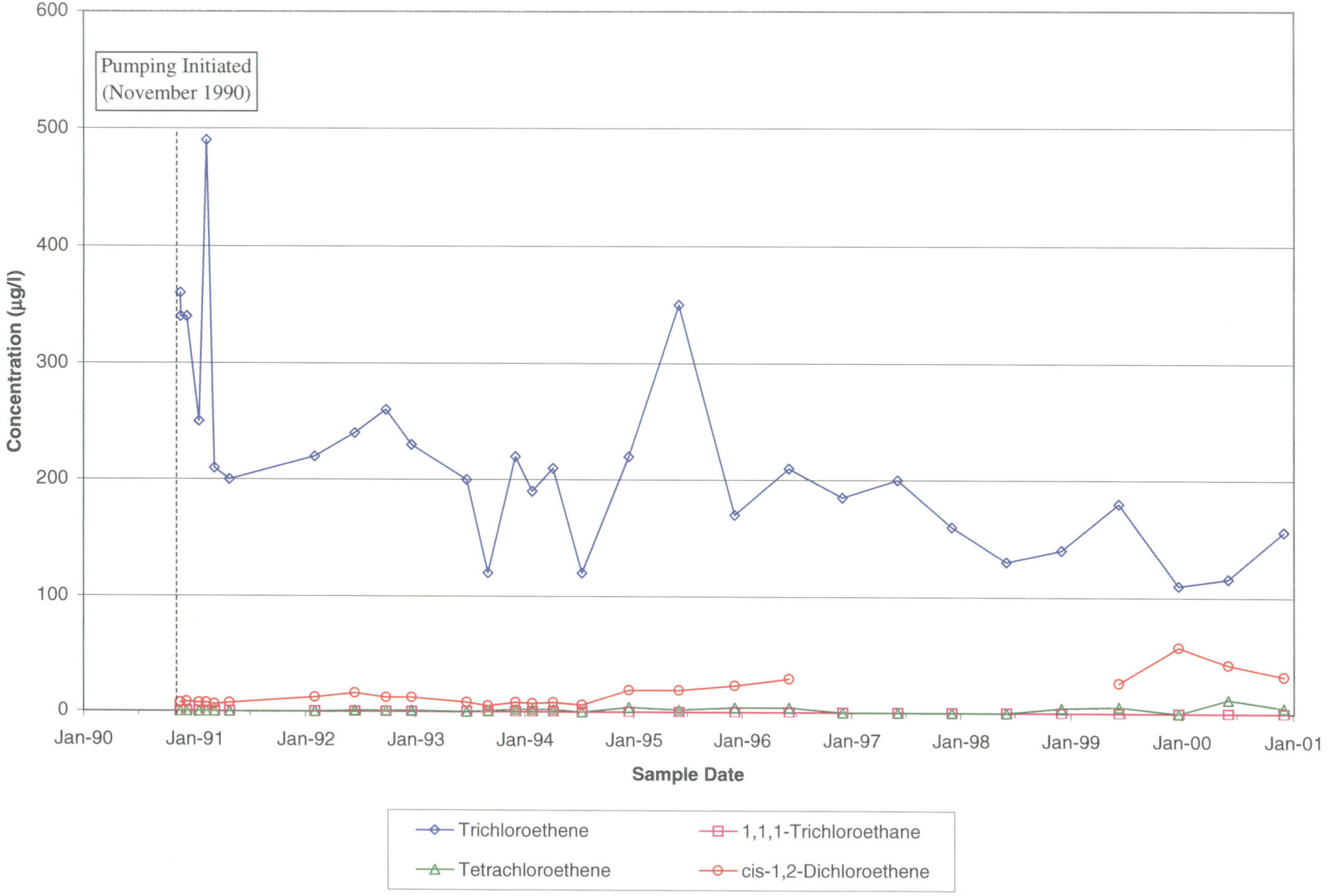

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Figure 5-9

Predominant VOC Concentrations
Extraction Well CW-5

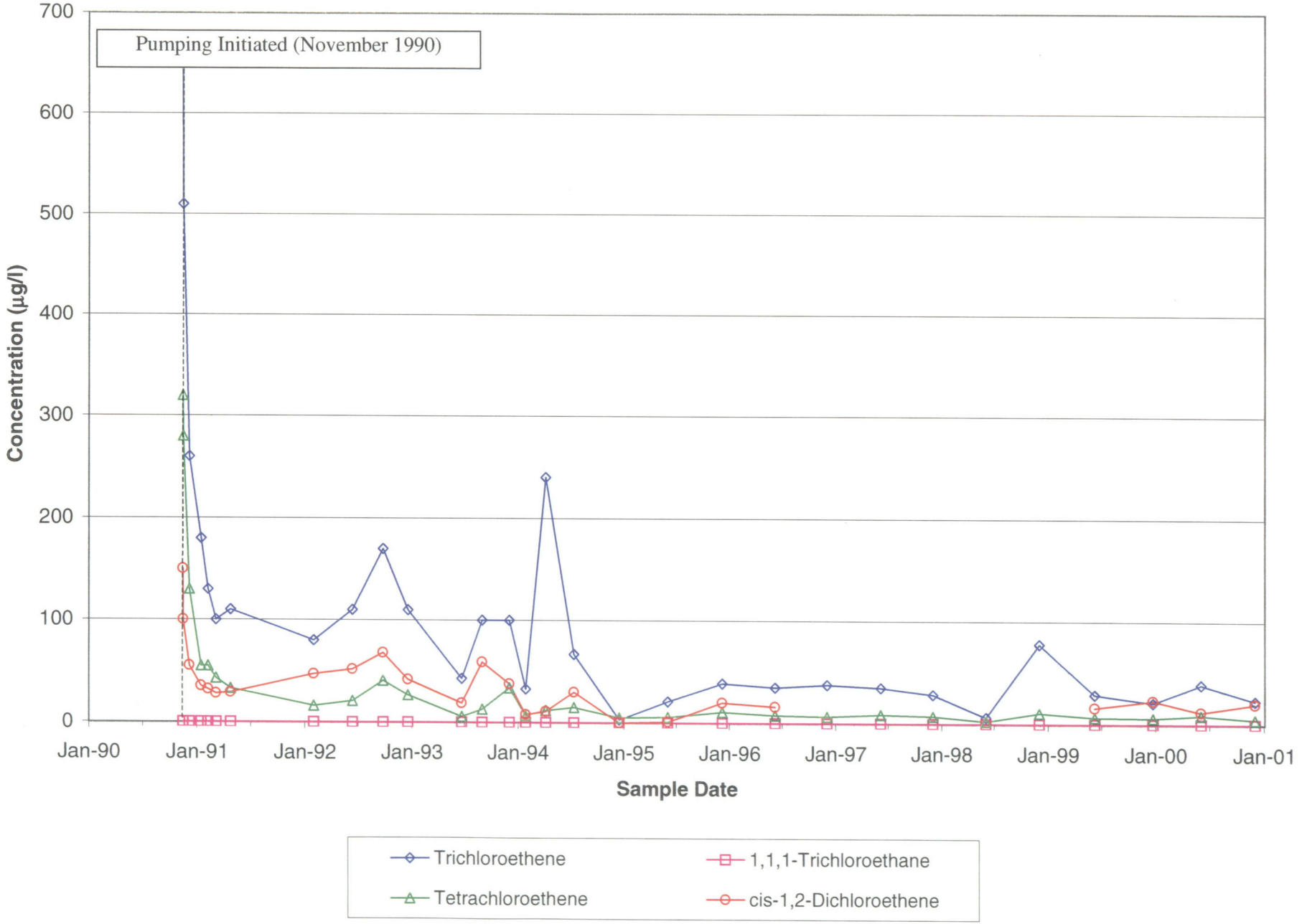

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Figure 5-10
Predominant VOC Concentrations
Extraction Well CW-6

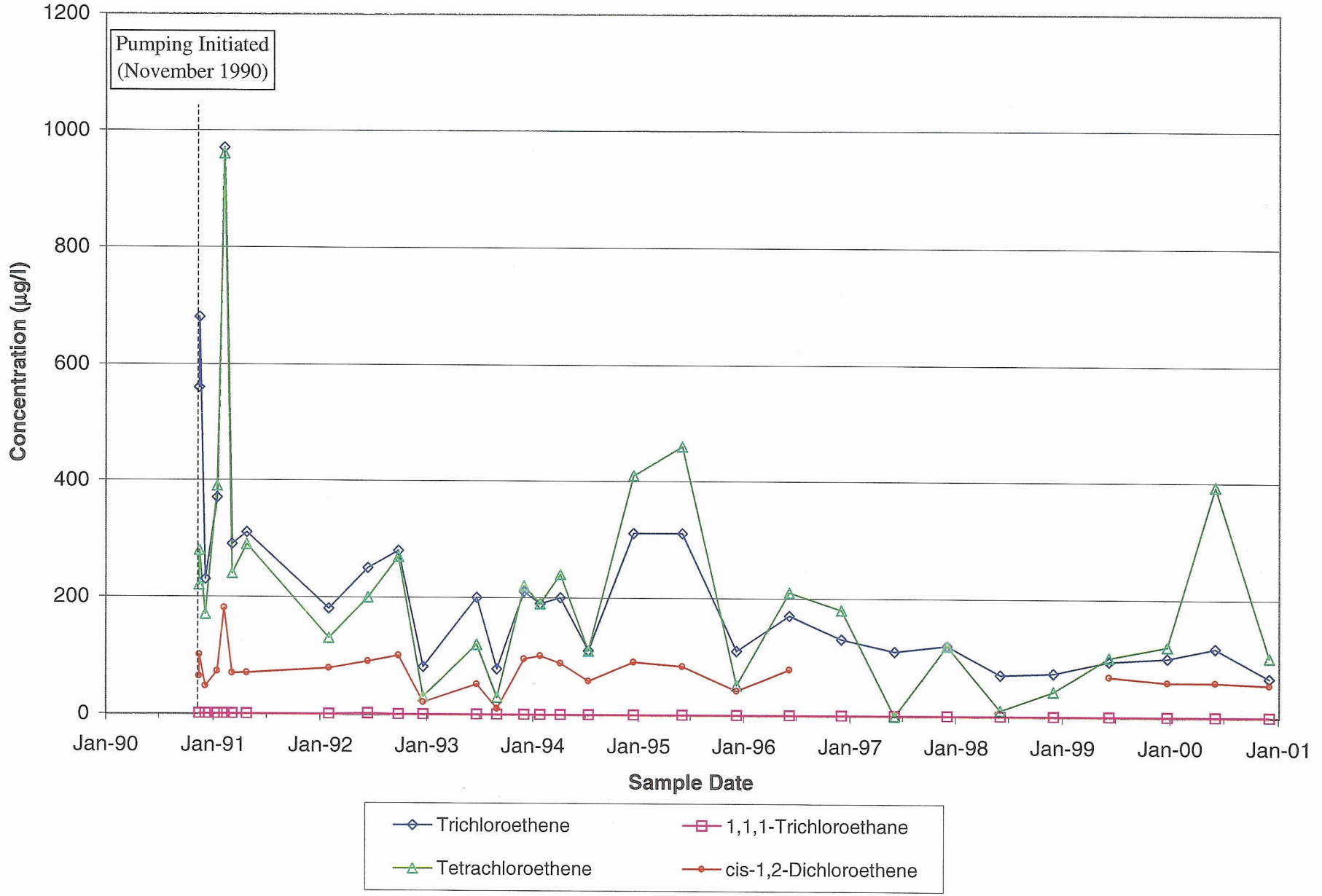

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Figure 5-11

Predominant VOC Concentrations
Extraction Well CW-7

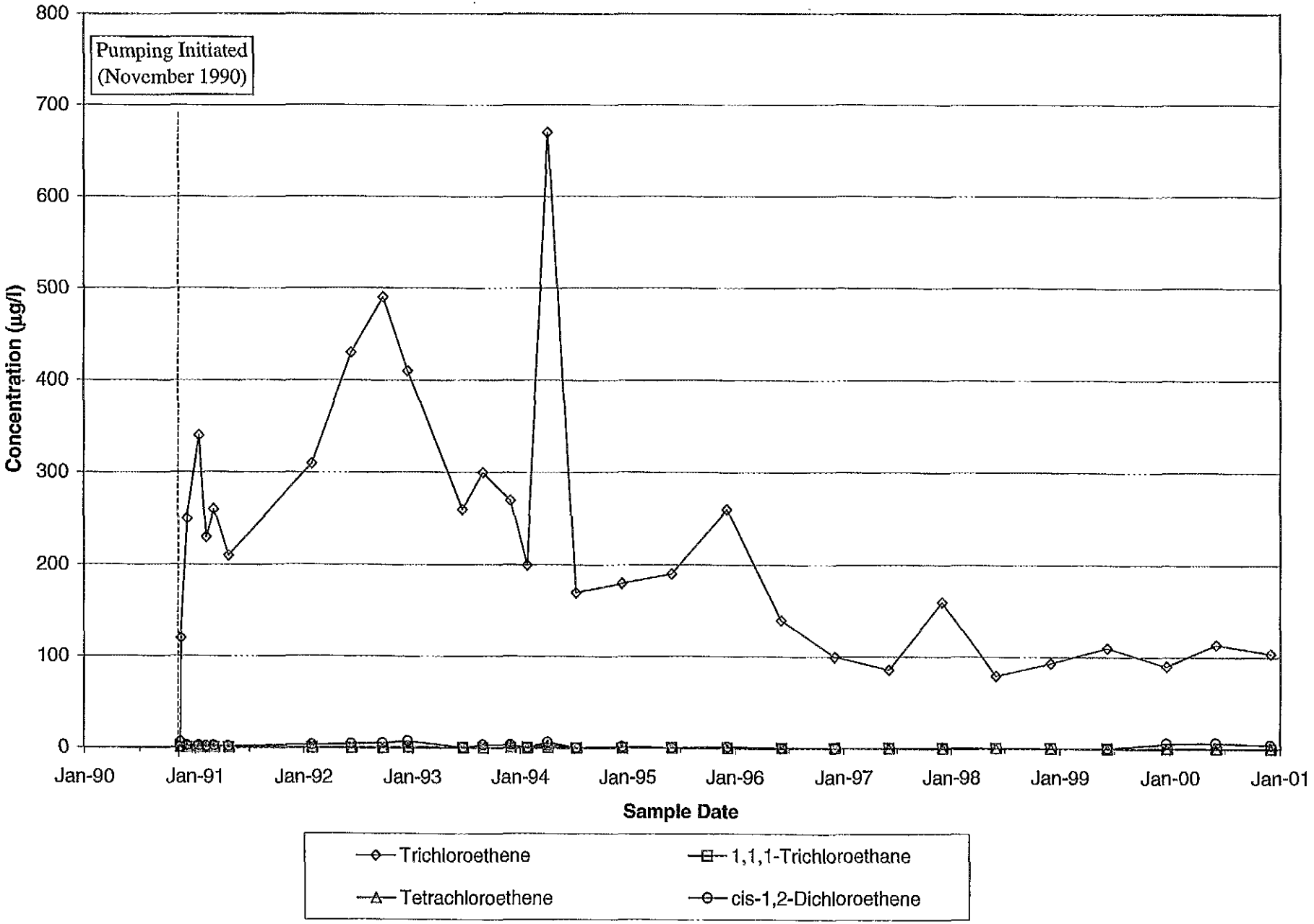

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Figure 5-12
Predominant VOC Concentrations
Extraction Well CW-7A

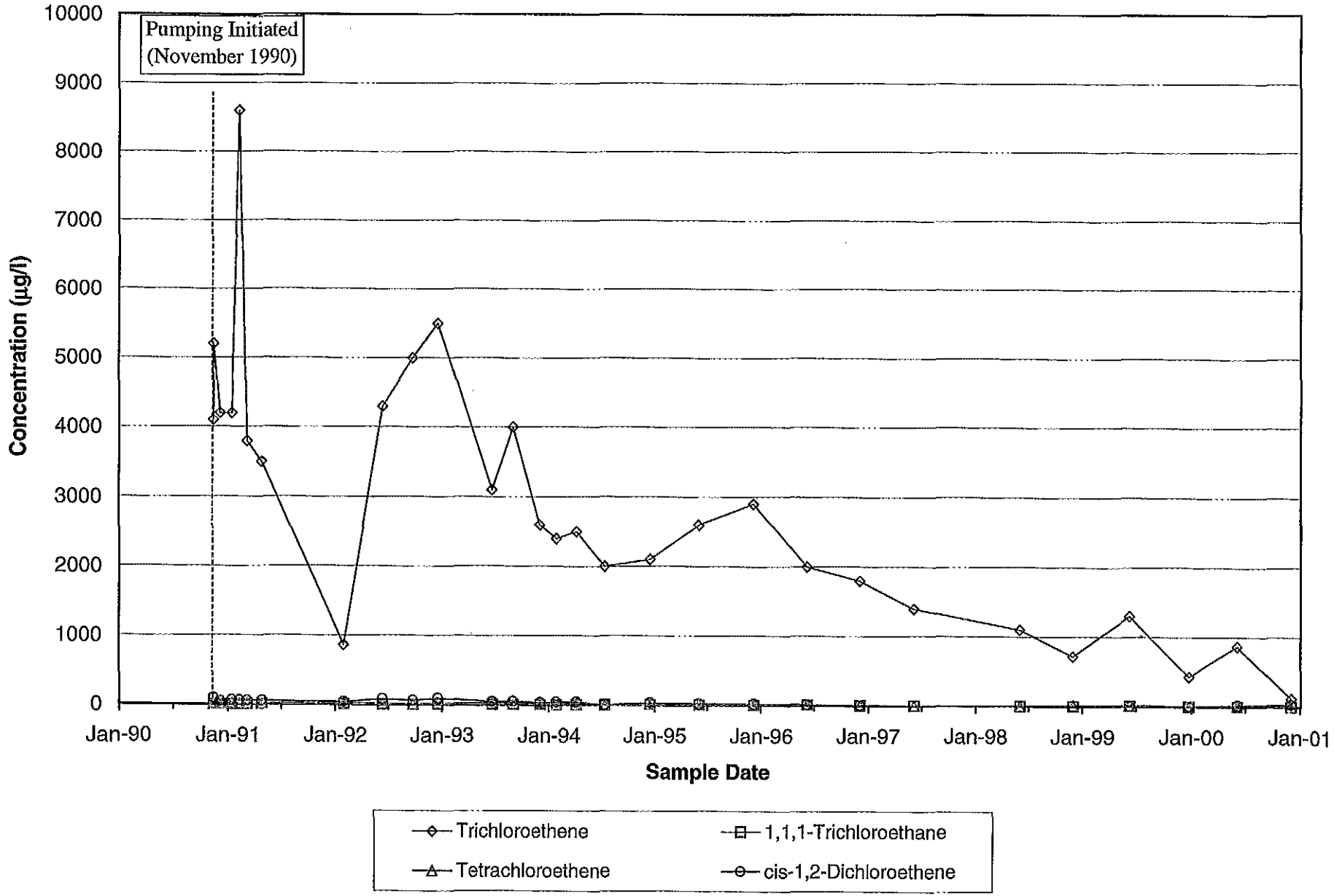

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Figure 6-1
TCE in TCA Area Monitoring Wells
Harley-Davidson Motor Company

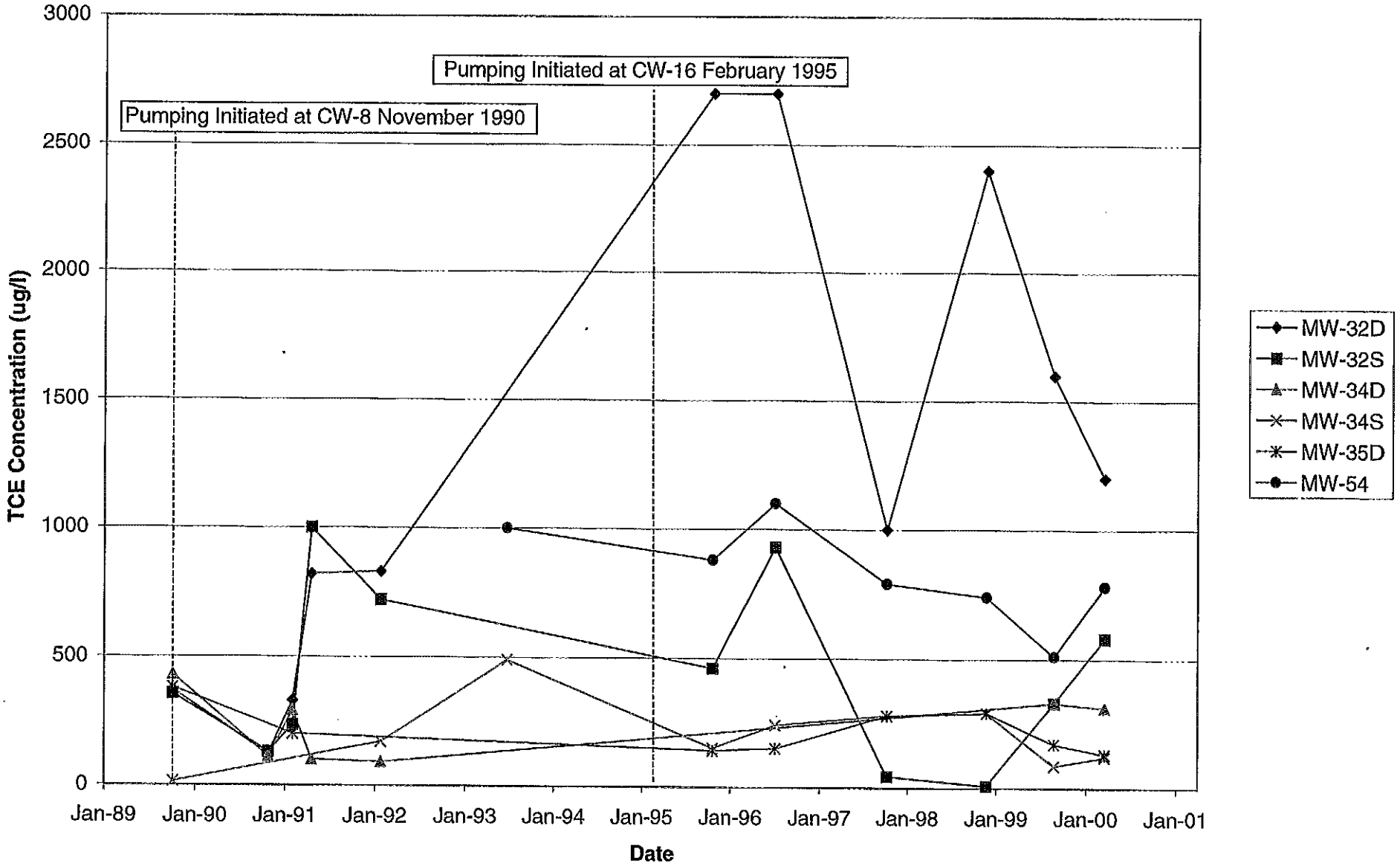

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Figure 6-2

Predominant VOC Concentrations
Extraction Well CW-8

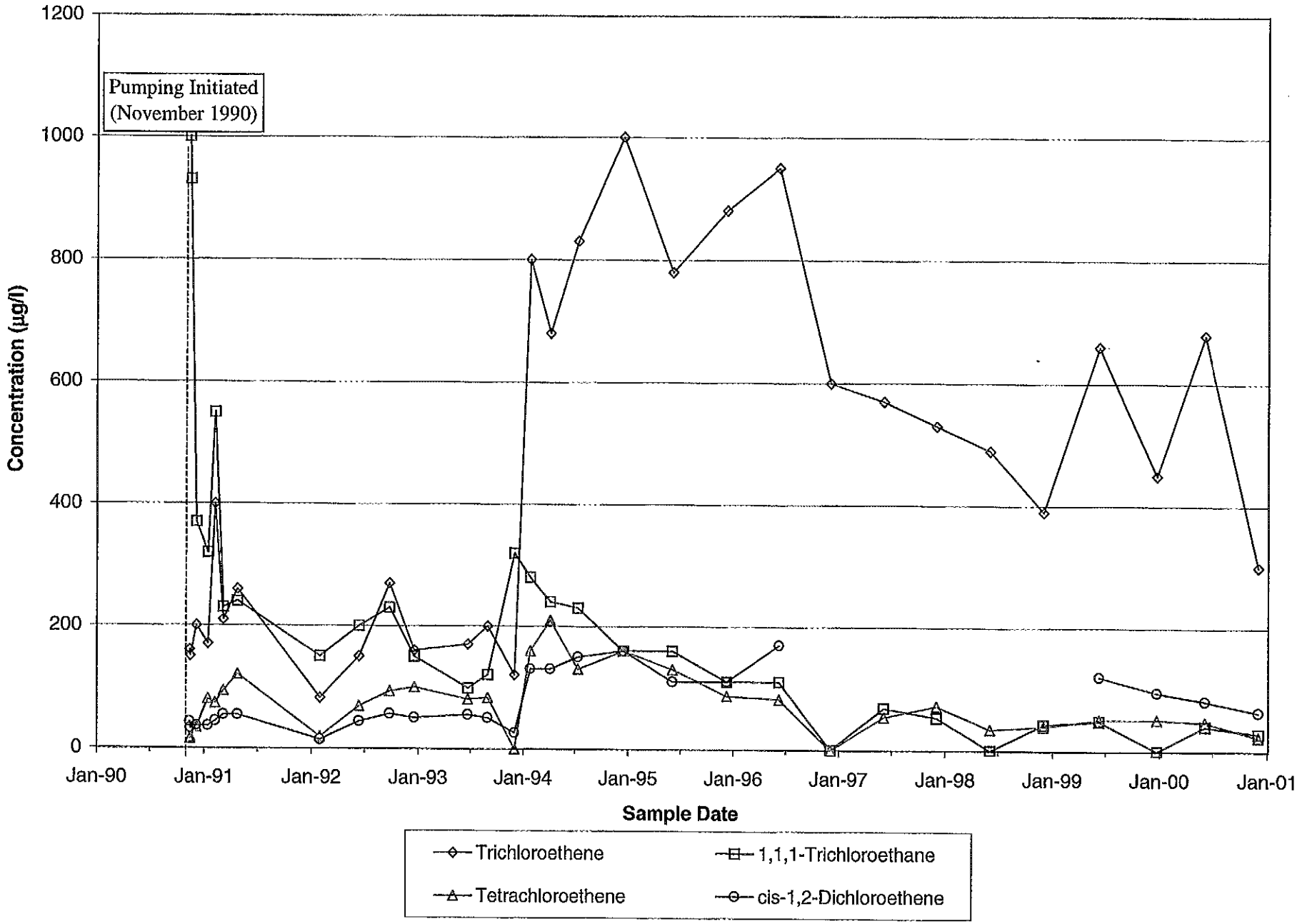

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Figure 6-3

Predominant VOC Concentrations
Extraction Well CW-16

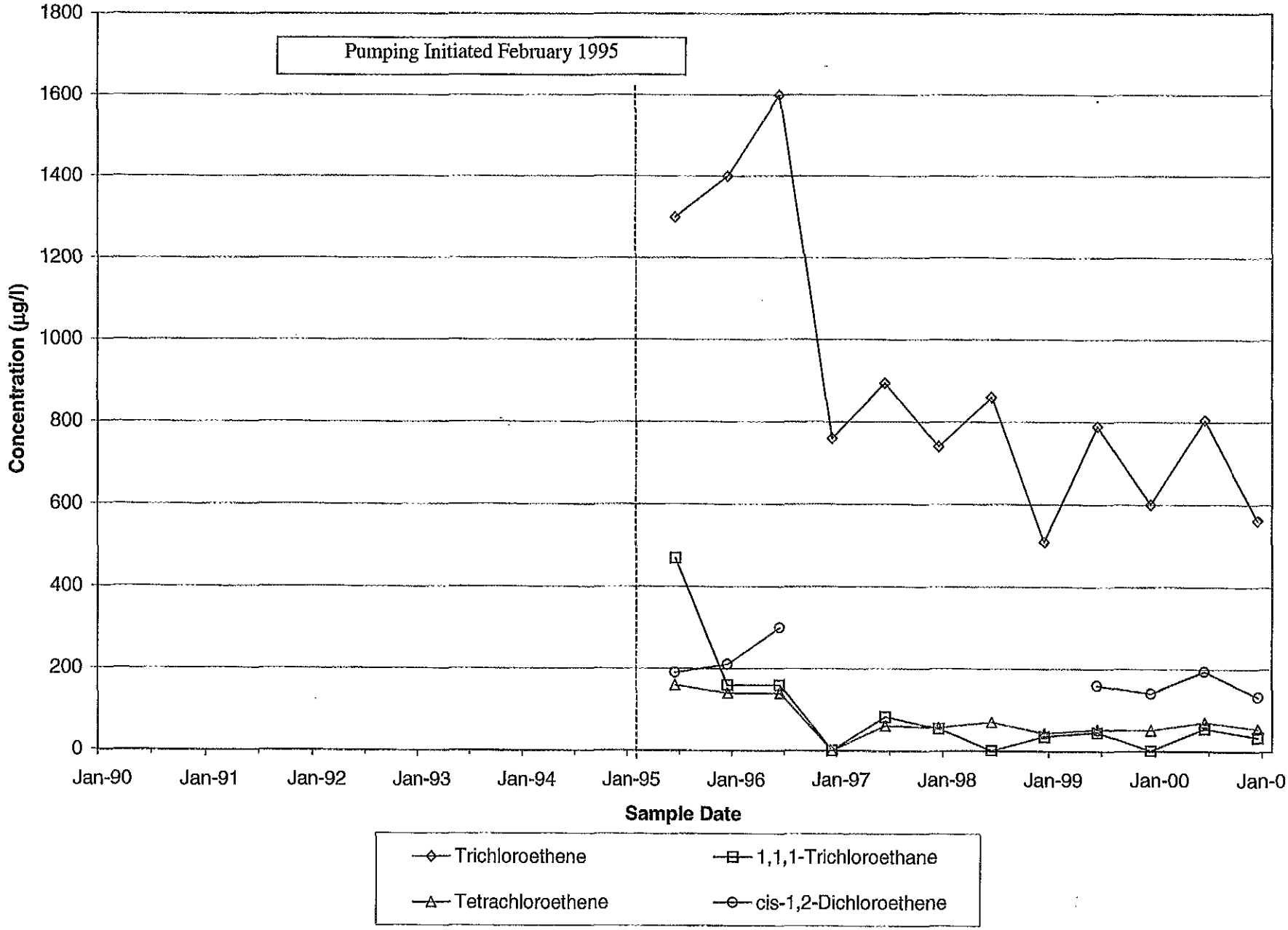

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Figure 7-1
TCE in WPL Monitoring Wells
Harley-Davidson Motor Company

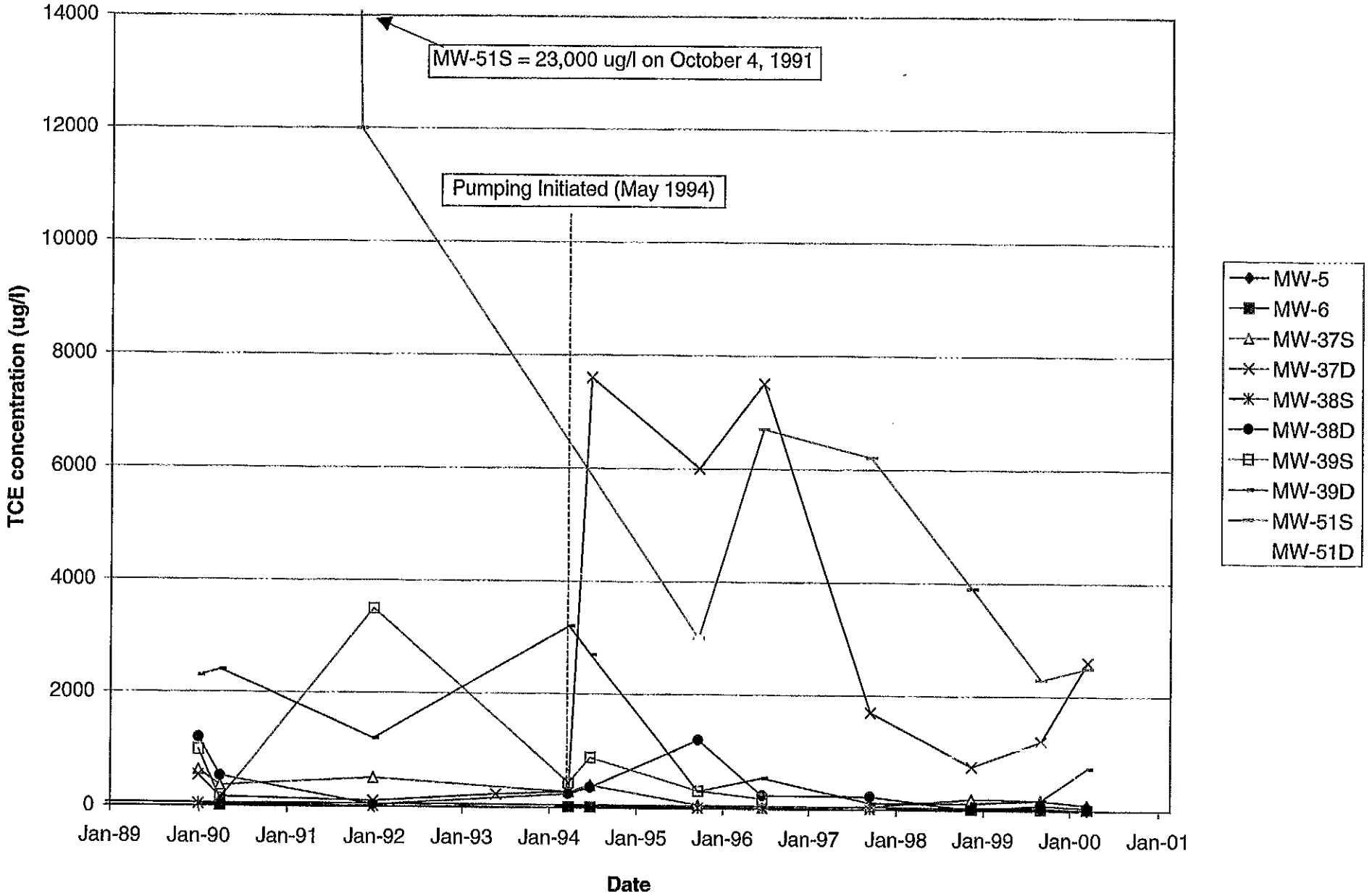

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Figure 7-2
TCE in WPL Collection Wells
Harley-Davidson Motor Company

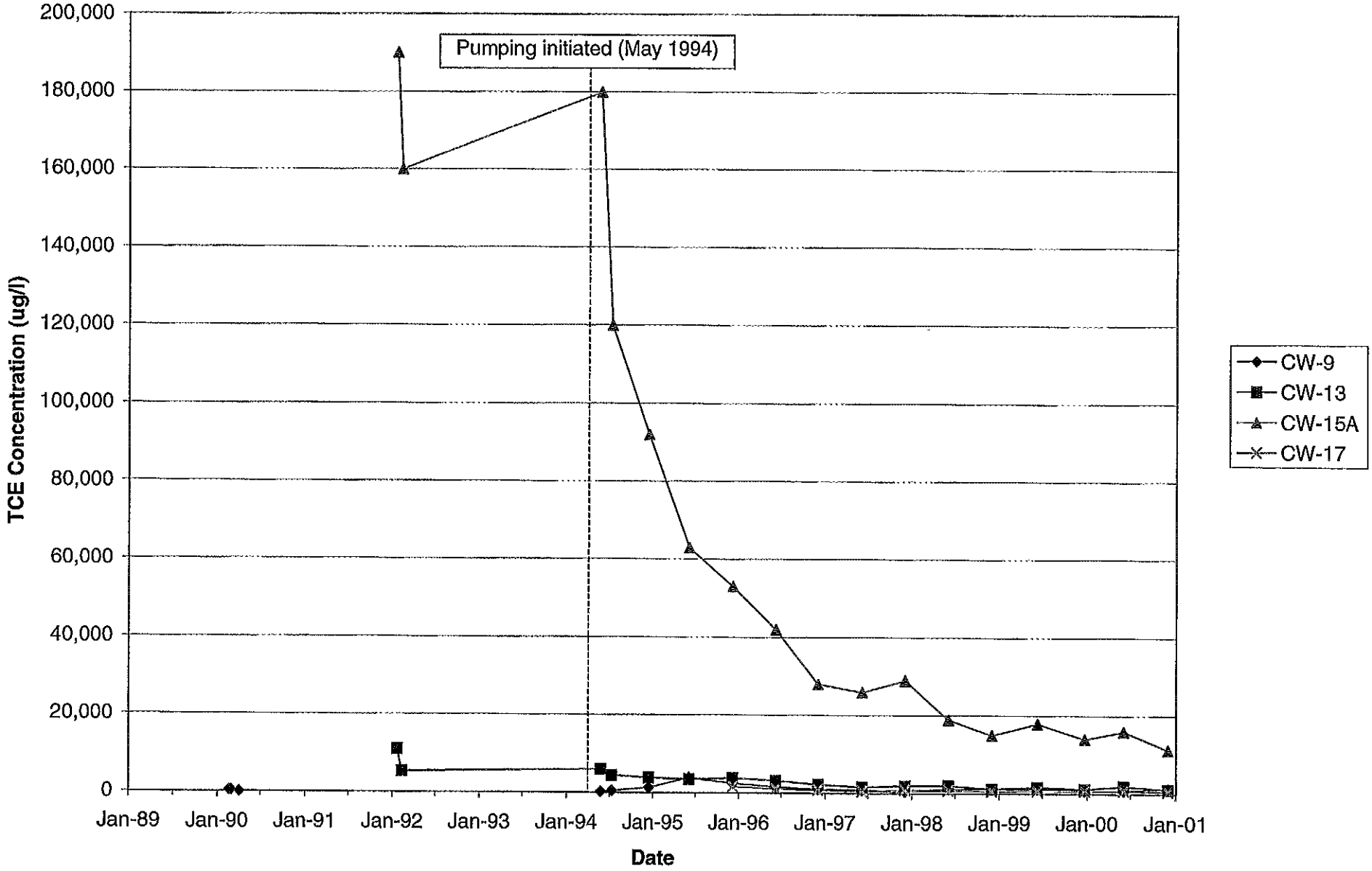

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Figure 7-3
Predominant VOC Concentrations
Extraction Well CW-9

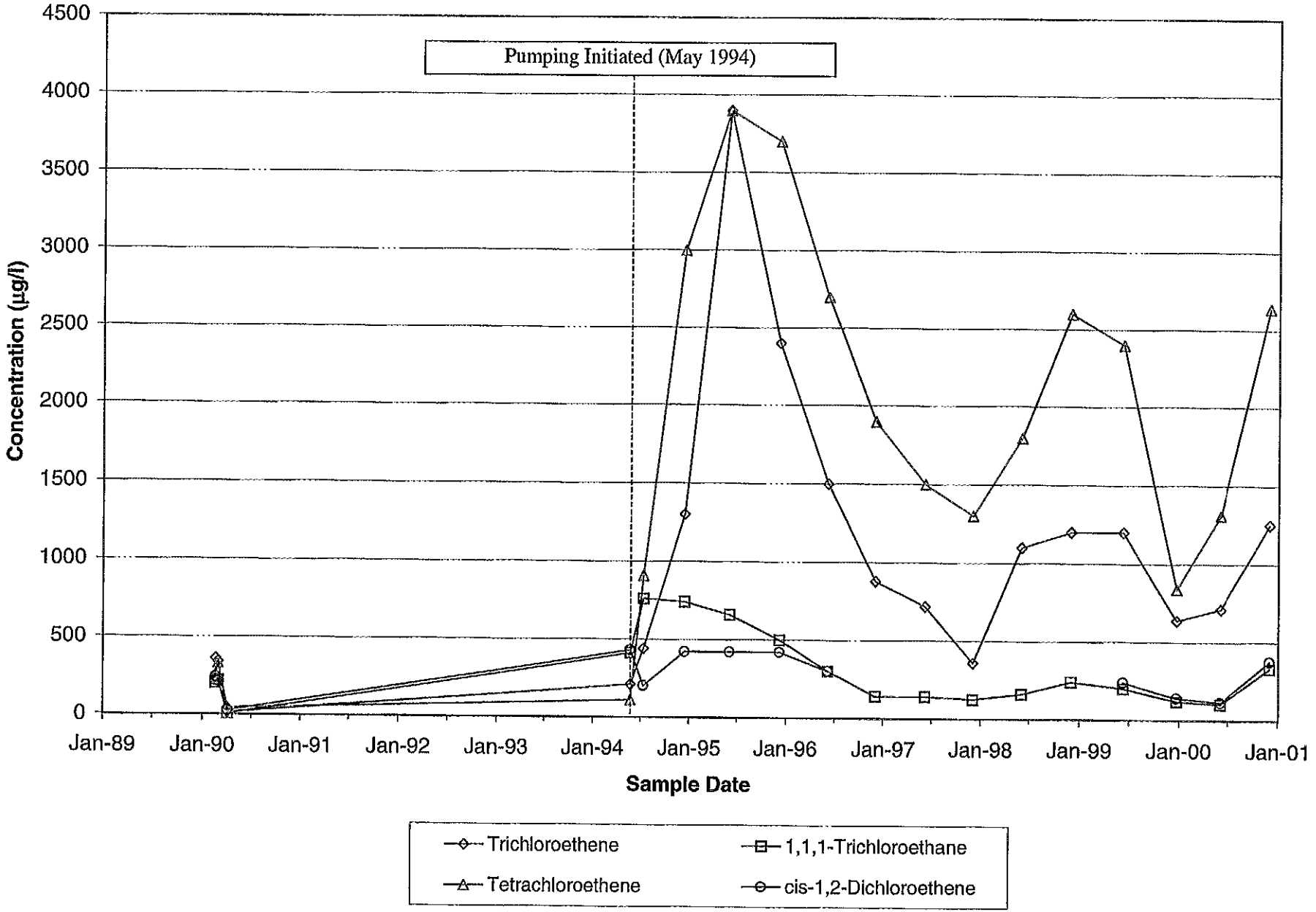

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Figure 7-4

Predominant VOC Concentrations
Extraction Well CW-13

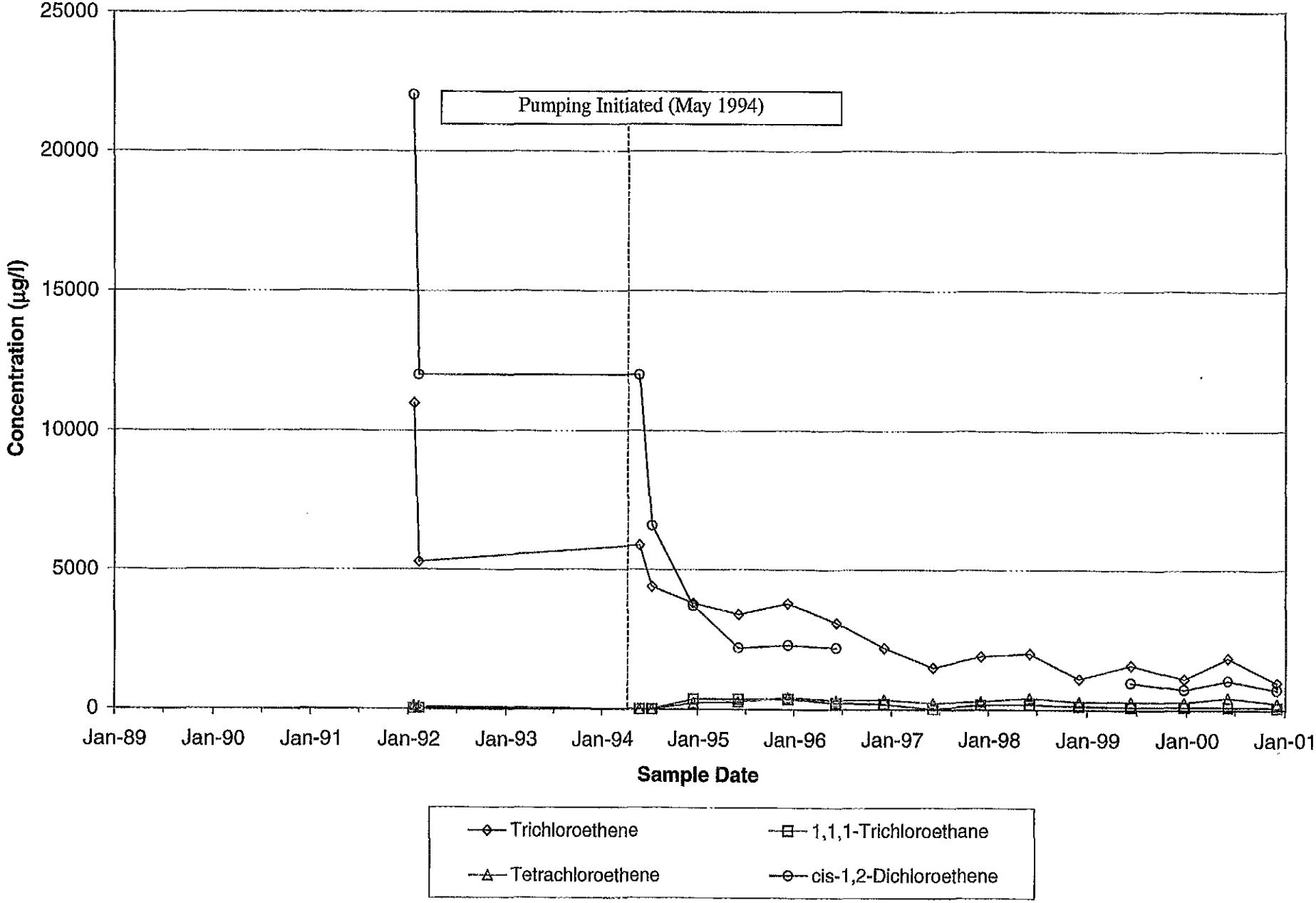

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Figure 7-5
Predominant VOC Concentrations
Extraction Well CW-15A

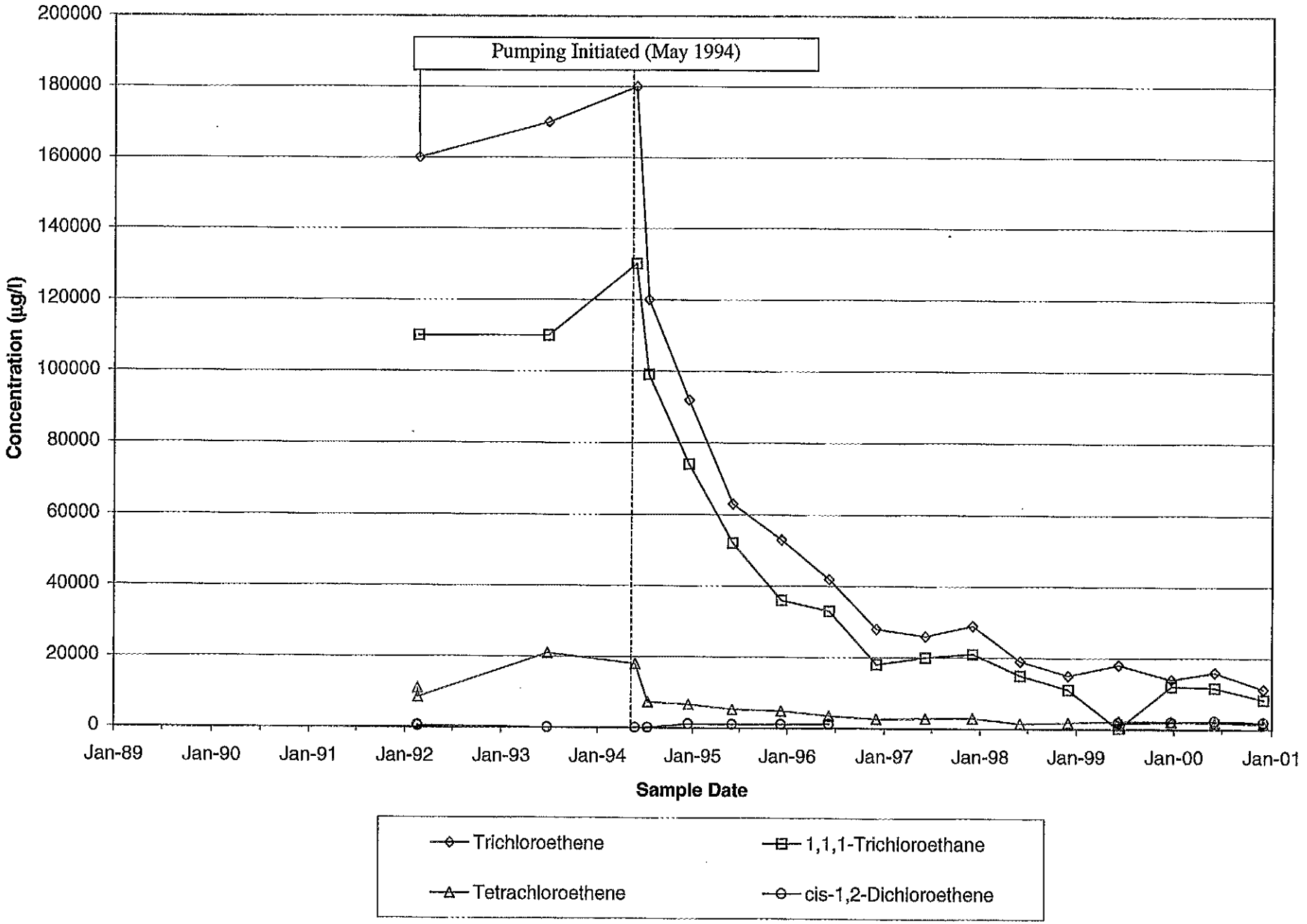

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Figure 7-6
Predominant VOC Concentrations
Extraction Wells CW-14 and CW-17

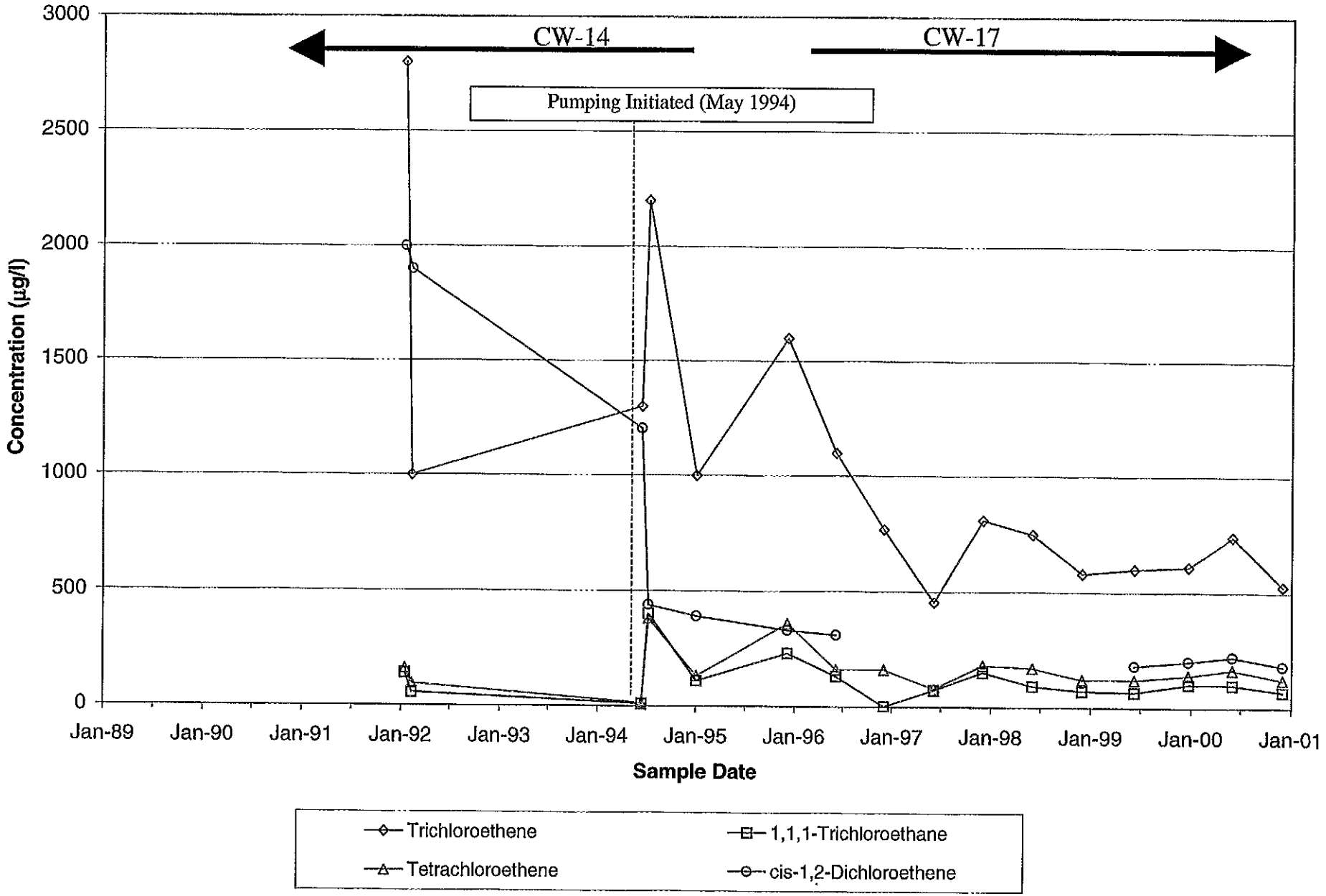

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Figure 8-1
TCE in SPBA Monitoring Wells
Harley-Davidson Motor Company

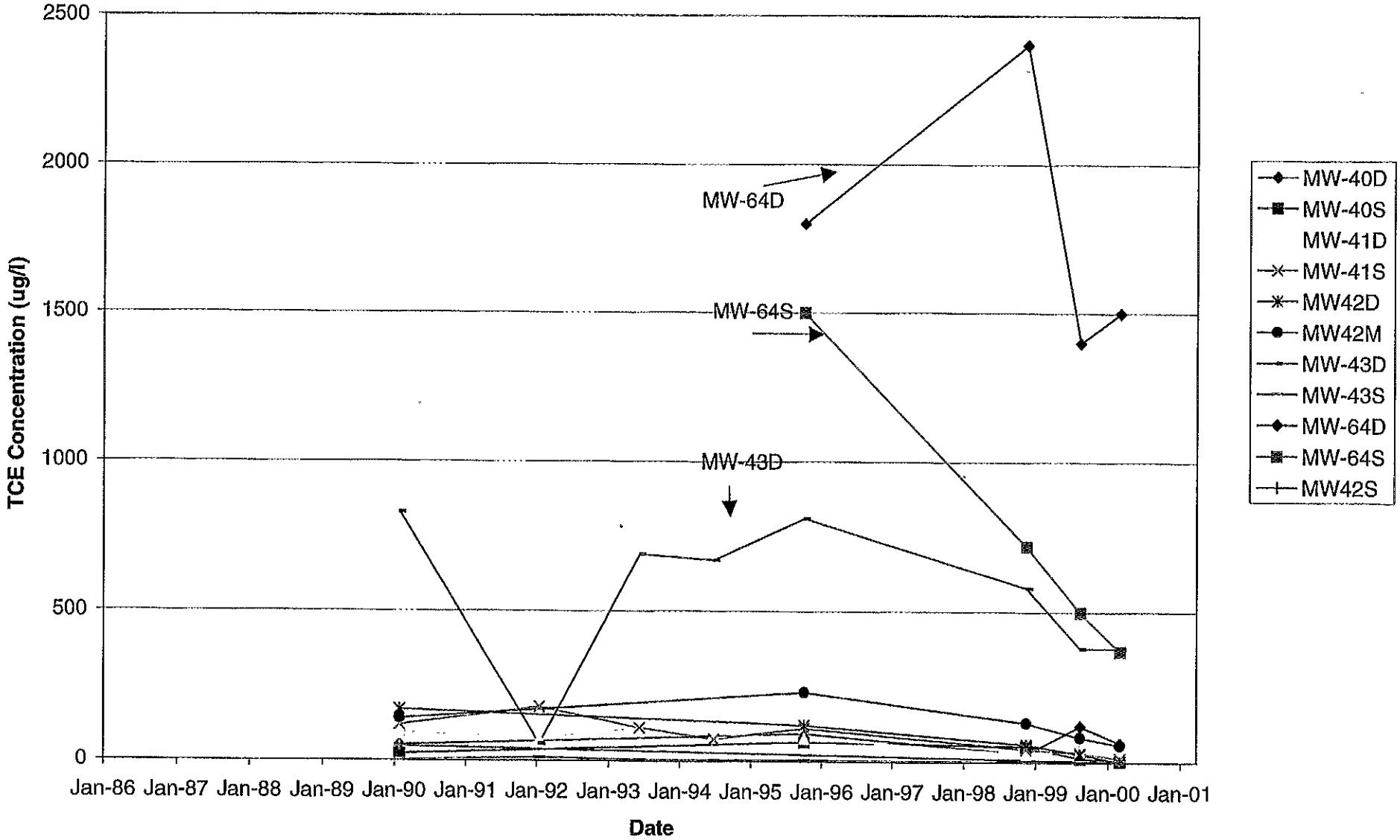

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Figure 9-1
TCE in Eastern Area Monitoring Wells
Harley Davidson Motor Company

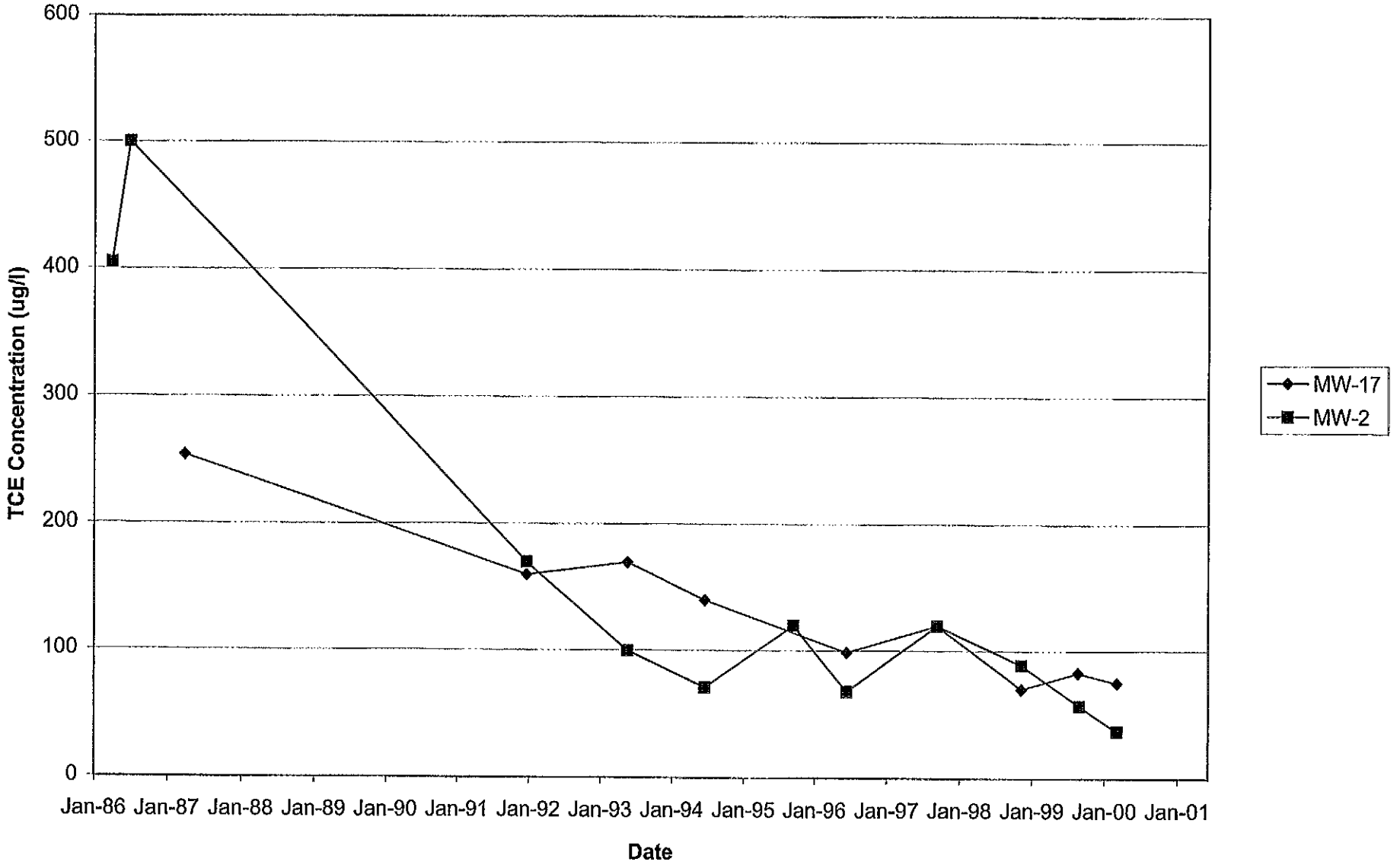

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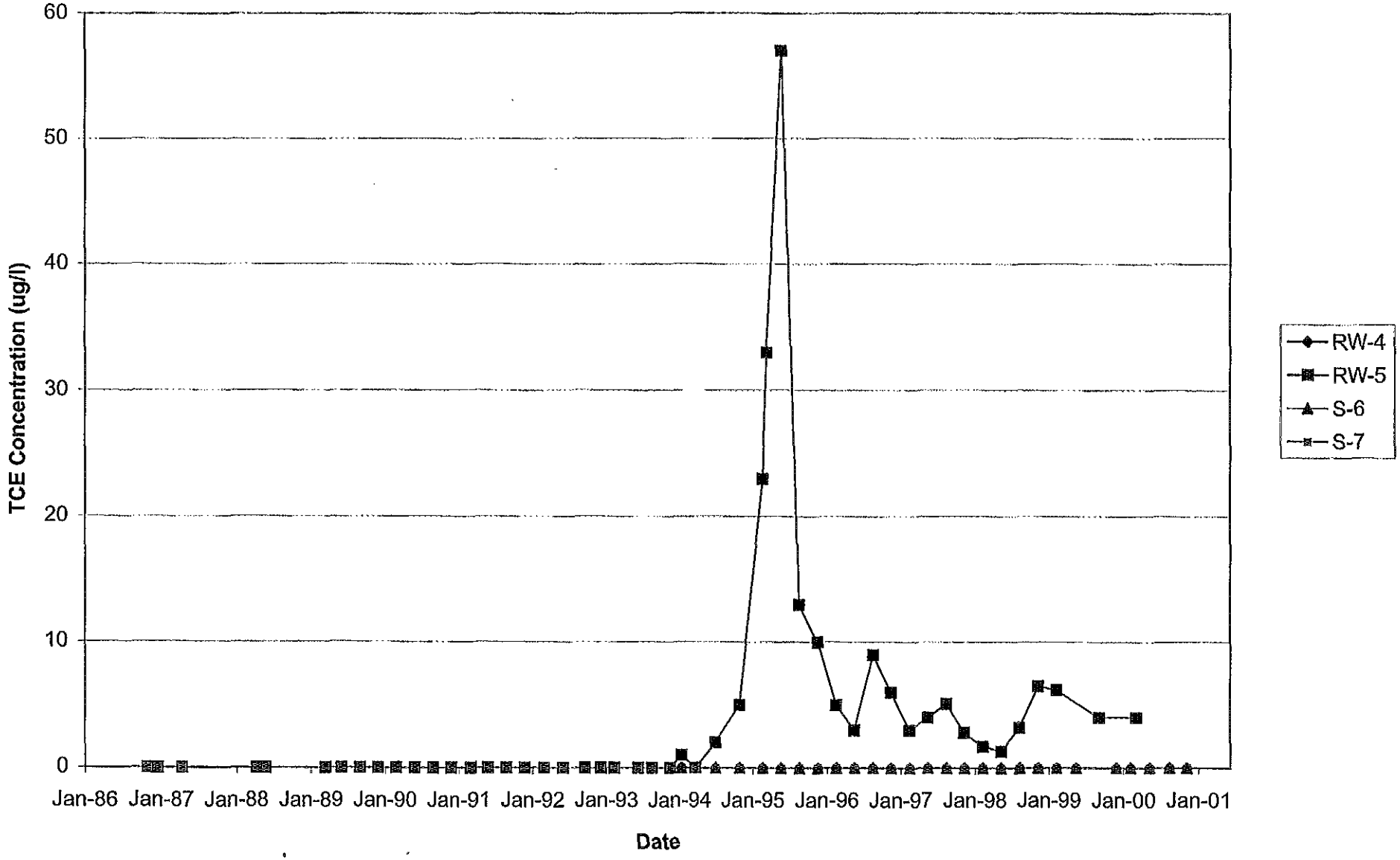
Figure 10-1
TCE in Off-Site Wells
Harley-Davidson Motor Company



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TABLES

TABLE 4-1
VOCs REMOVED FROM COLLECTED GROUNDWATER
GROUNDWATER TREATMENT SYSTEM
JULY 1, 1999 - DECEMBER 31, 2000
Harley - Davidson Motor Company

DATE	MONTHLY GROUNDWATER WITHDRAWAL (PTA Totalizer, gallons)	AVERAGE MONTHLY TOTAL VOCs (ppb)	ESTIMATED MONTHLY VOC REMOVAL (pounds)
Jul-99	10,504,600	1476	129
Aug-99	10,972,200	1446 *	132
Sep-99	11,974,300	1446 *	145
Oct-99	5,179,600	1416	61
Nov-99	11,971,700	1419 *	142
Dec-99	11,789,500	1419 *	140
Jan-00	12,517,800	1421	149
Feb-00	12,268,033	1284 *	132
Mar-00	13,736,266	1284 *	147
Apr-00	13,447,300	1147	129
May-00	13,675,100	1270 *	145
Jun-00	13,245,300	1270 *	140
Jul-00	13,061,000	1392	152
Aug-00	12,584,799	1496 *	157
Sep-00	12,283,648	1496 *	153
Oct-00	12,518,421	1600	167
Nov-00	11,573,809	1600 *	155
Dec-00	11,928,001	1600 *	159
TOTAL	**215,231,377**	**NA**	**2535**

ANNUAL TOTALS		
YEAR	YEARLY GROUNDWATER WITHDRAWAL (gallons)	ESTIMATED YEARLY VOC REMOVAL (pounds)
1990 (NOV & DEC)	12,954,886	92
1991	62,458,393	357
1992	66,081,120	322
1993	72,198,940	421
1994	88,387,251	3,905
1995	141,357,856	5,572
1996	152,168,899	3,631
1997	150,246,400	2,675
1998	157,461,800	2,795
1999	133,687,100	1,464
2000	152,839,477	1,785
TOTAL	**1,189,842,122**	**23,020**

NOTES:

* - No sample collected this month; concentration is an average of preceeding and subsequent analytical results.

** - No sample collected this month; concentration is the most recent previous analytical result.

NA - Not Applicable

TABLE 5-1
RECORD OF GROUNDWATER WITHDRAWALS
GALLONS PER MONTH FOR EACH EXTRACTION WELL
JULY 1, 1999 - DECEMBER 31, 2000
Harley-Davidson Motor Company

	NPBA WELLS										TCA WELLS			WPL WELLS					MONTHLY
MONTH	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A	SUBTOTAL	CW-8	CW-16	SUBTOTAL	CW-9	CW-13	CW-15A	CW-17	SUBTOTAL	TOTAL
Jul-99	61,303	625	1,251	47,071	57,085	34,336	63,456	8,744	102	273,973	3,242,250	420,925	3,663,175	1,566,096	2,265,483	138,681	1,886,635	5,856,895	9,794,043
Aug-99	86,337	292	48	104,813	85,132	29,492	66,783	11,520	2	384,419	3,403,912	331,852	3,735,764	1,085,150	1,812,612	96,134	1,481,766	4,475,662	8,595,845
Sep-99	99,827	1,327	989	66,138	93,069	80,866	85,148	18,117	4	445,485	3,835,600	538,549	4,374,149	1,662,260	2,923,505	153,880	2,385,588	7,125,233	11,944,867
Oct-99	131,877	1,872	3,199	115,430	97,595	125,045	127,651	20,359	1,929	624,957	1,632,697	209,875	1,842,572	586,254	1,012,618	53,299	826,083	2,478,254	4,945,783
Nov-99	133,368	1,051	5	180,705	112,721	62,658	210,728	19,863	14	721,113	4,233,200	490,957	4,724,157	1,542,536	2,664,377	140,289	2,108,431	6,455,633	11,900,903
Dec-99	106,864	1,118	28	152,475	114,801	58,013	197,289	19,131	2	649,721	4,208,400	469,575	4,677,975	1,527,327	2,633,316	138,354	2,127,889	6,426,886	11,754,582
Jan-00	130,591	912	174	104,389	114,908	50,384	199,900	19,812	4	621,074	4,417,100	1,246,554	5,663,654	1,814,319	2,426,805	98,251	2,574,290	6,913,665	13,198,393
Feb-00	113,638	1,686	10,775	85,750	113,441	110,962	178,238	19,547	7	634,044	4,183,433	1,641,140	5,824,573	1,726,229	2,271,526	60,335	2,421,382	6,479,472	12,938,089
Mar-00	131,056	2,158	14,271	104,426	98,516	182,345	189,186	17,992	556	740,506	4,178,166	1,859,620	6,037,786	1,767,473	2,455,756	92,209	2,598,985	6,914,423	13,692,715
Apr-00	133,699	1,288	10,205	196,991	120,718	179,809	162,100	24,225	1,049	830,084	3,519,300	2,070,430	5,589,730	1,715,093	2,389,365	177,818	2,504,241	6,786,517	13,206,331
May-00	63,091	3,419	17,791	187,370	29,870	142,296	150,409	23,562	1	617,809	3,569,140	2,125,870	5,695,010	1,762,651	2,439,305	143,103	2,572,807	6,917,866	13,230,685
Jun-00	148,169	1,823	11,415	106,018	91,082	118,522	138,294	20,708	1	636,032	3,425,800	2,061,220	5,487,020	1,712,351	2,368,927	104,238	2,510,161	6,695,677	12,818,729
Jul-00	139,703	1,300	5,960	132,255	124,265	91,760	121,753	20,189	2	637,187	3,638,100	1,651,470	5,289,570	1,742,888	2,410,248	59,311	2,572,646	6,785,093	12,711,850
Aug-00	125,375	813	3,760	204,944	118,839	56,179	88,858	19,803	2	618,573	3,589,960	1,553,048	5,143,008	1,739,962	2,379,065	60,181	2,559,217	6,738,425	12,500,006
Sep-00	114,585	5	1,779	183,414	100,245	89,100	46,092	18,635	0	553,855	3,556,500	1,527,981	5,084,481	1,724,720	2,331,634	83,670	2,511,016	6,651,040	12,289,376
Oct-00	132,242	1,237	5,549	124,668	71,742	121,165	94,537	19,440	5	570,585	3,615,500	1,549,030	5,164,530	1,747,480	2,368,507	85,277	2,612,107	6,813,371	12,548,486
Nov-00	111,122	1,145	3,287	72,953	126,521	61,266	171,620	19,604	0	567,518	3,550,644	1,414,570	4,965,214	1,547,544	2,098,726	37,283	2,359,838	6,043,391	11,576,123
Dec-00	123,906	1,036	3,656	73,190	132,427	63,454	172,779	10,968	1	581,417	3,710,900	1,411,300	5,122,200	1,620,876	2,322,193	65,752	2,622,339	6,631,160	12,334,777
TOTALS	1,339,820	17,571	70,151	1,451,576	1,128,938	1,174,728	1,769,182	223,580	3,671	10,708,352	43,848,998	13,466,567	88,084,568	18,467,739	27,663,595	1,396,591	25,998,258	113,188,663	211,981,583

TABLE 5-2
GROUNDWATER EXTRACTION WELL
PUMPING ELEVATIONS
Harley-Davidson Motor Company

Extraction System Location	Well No.	Reference Elevation (ft AMSL)	Range (ft AMSL)		Groundwater Elev. (ft AMSL)
			Pump On (High)	Pump Off (Low)	12/22-23/99
NPBA	CW-1	570.88	496.38	493.38	491.97
	CW-1A	569.93	510.43	507.43	507.13
	CW-2	557.79	484.29	481.29	478.38
	CW-3	519.43	441.43	438.43	441.37
	CW-4	542.32	458.82	455.82	455.88
	CW-5	472.06	426.56	423.56	425.82
	CW-6	486.98	416.48	413.48	417.70
	CW-7	574.61	494.11	491.11	491.67
	CW-7A	574.71	524.21	521.21	529.63
TCA	CW-8	363.84	339.84	335.84	337.72
	CW-16	364.32	334.32	329.32	332.32
WPL	CW-9	360.79	333.79	328.79	335.19
	CW-13	361.64	327.6	322.6	326.20
	CW-15A	362.57	333.5	328.5	330.14
	CW-17	361.67	335.67	330.67	331.70

Notes:
ft AMSL - feet above mean sea level
NM - Not Measured

Table 5-3. Pre- and Post-Rehabilitation Well Performance Data
Harley-Davidson Motor Company
York, PA

		Pre-Rehabilitation Results			Post-Rehabilitation Results			
Well ID	Run #	Q (gpm)	s (ft/15-min)	Q/S (g/ft)	Q (gpm)	s (ft/15-min)	Q/S (g/ft)	% Change
CW-2	1	0.75	7.11	0.105	0.75	5.41	0.139	
	2	1.5	23.23	0.065	1.5	22.43	0.067	
	3	2.5	49.52	0.050	2.5	46.54	0.054	
	Avg.			**0.074**			**0.086**	17.5%
CW-4	1	1.25	5.77	0.217	1.25	4.3	0.291	
	2	2.5	10.76	0.232	2.5	14.75	0.169	
	3	5	36.01	0.139	5	36.96	0.135	
	Avg.			**0.196**			**0.198**	1.3%
CW-7A	1	0.75	2.48	0.302	0.75	2.38	0.315	
	2	1.5	7.44	0.202	1.5	4.78	0.314	
	3	2.5	16.58	0.151	2.5	13.03	0.192	
	Avg.			**0.218**			**0.274**	25.3%
CW-16	1	17	8.84	1.92	13	0.15	86.67	
	2	15	7.78	1.93	17	0.6	28.33	
	3	18.5	9.05	2.04	25	3.38	7.40	
	4				35	5.21	6.72	
	5				45	7.42	6.06	
	6				55	10.26	5.36	
	Avg.			**1.97**			**23.42**	1092.0%

Note: values of Q and s which are left-justified were run at less than 15-minute durations.

TABLE 5-4
COMPARISON OF INDIVIDUAL VOC VS TOTAL VOC CONCENTRATIONS
NORTH PROPERTY BOUNDARY AREA
HARLEY-DAVIDSON MOTOR COMPANY
YORK, PA

SAIC Project 01-1633-00-1671-100

Wells	Groundwater Extraction 1998-99 (Gallons)	Groundwater Extraction 1999-2000 (Gallons)	TCE Dec-98 (ug/l)	TCE 1999* (ug/l)	TCE%** Dec-99	PCE Dec-98 (ug/l)	PCE 1999* (ug/l)	PCE%** Dec-99
CW-1	1,608,450	1,339,820	91	110	93	ND	ND	0
CW-1A	12,717	17,571	600	350	100	6.3	ND	0
CW-2	37,262	70,151	80	53	69	ND	ND	0
CW-3	1,289,237	1,451,576	150	110	77	2.1	ND	0
CW-4	1,004,044	1,128,938	140	110	66	4.4	ND	0
CW-5	684,376	1,174,728	78	21	42	11	6.1	12
CW-6	2,344,586	1,769,182	74	100	36	43	120	13
CW-7	241,657	223,580	93	90	94	ND	ND	0
CW-7A	24,660	3,671	720	430	100	14	ND	0
TOTALS	7,246,989	7,179,217						
MW-10	NA	NA	540	24	13	ND	ND	0
MW-12	NA	NA	110	140	88	ND	11	6.9
RW-2	NA	NA	13	3	100	ND	ND	0

* - Collection wells (CW) sampled in 12/99, monitoring wells (MW/RW) sampled in 9/99.
** - Represents the percent of the total volatile organic compound concentration.
NA - Not Applicable/Analyzed
ND - Not Detected above method detection limit
ug/l - Micrograms per liter

TABLE 6-1
COMPARISON OF INDIVIDUAL VOC VS TOTAL VOC CONCENTRATIONS
TCA TANK AREA
HARLEY-DAVIDSON MOTOR COMPANY
YORK, PA

SAIC Project No. 01-1633-00-1671-100

Wells	Groundwater Extraction 1998-99 (Gallons)	Groundwater Extraction 1999-2000 (Gallons)	TCA Dec-98 (ug/l)	TCA 1999* (ug/l)	TCE Dec-98 (ug/l)	TCE 1999* (ug/l)	PCE Dec-98 (ug/l)	PCE 1999* (ug/l)	DCE*** Dec-98 (ug/l)	DCE*** 1999* (ug/l)
CW-8	55,490,200	43,848,998	42	ND	390	450	39	51	93	95
CW-16	5,995,740	13,466,567	35	ND	510	600	43	50	110	140
TOTALS	61,485,940	57,315,565								
MW-32S	NA	NA	130	370	7.1	330	ND	27	310	74
MW-32D	NA	NA	98	96	2,400	1,600	130	100	620	800
MW-34S	NA	NA	16	5	290	85	120	50	52	15
MW-35D	NA	NA	11	7	290	170	56	51	73	63
MW-54	NA	NA	760	150	740	510	43	62	260	170

Wells	% TCA** Dec-99	% TCE** Dec-99	% PCE** Dec-99	% DCE** Dec-99
CW-8	0	75	9	16
CW-16	0	76	6	18
MW-32S	43	39	3	9
MW-32D	4	59	4	29
MW-34S	3	54	32	10
MW-35D	2	57	17	21
MW-54	12	42	5	14

* - Collection wells (CW) sampled 12/99, monitoring wells (MW) sampled in 9/99.
** - Represents the percent of the total volatile organic compound concentration
*** - Represents the concentration of cis-1,2-DCE
NA - Not Applicable/Analyzed
ND - Not Detected above method detection limit
ug/l - Micrograms per liter

TABLE 7-1
COMPARISON OF INDIVIDUAL VOC VS TOTAL VOC CONCENTRATIONS
WEST PARKING LOT
HARLEY-DAVIDSON MOTOR COMPANY
YORK, PA

SAIC Project No. 01-1633-00-1671-100

Wells	Groundwater Extraction 1998-99 (Gallons)	Groundwater Extraction 1999-2000 (Gallons)	TCA Dec-98 (ug/l)	TCA 1999* (ug/l)	TCE Dec-98 (ug/l)	TCE 1999* (ug/l)	PCE Dec-98 (ug/l)	PCE 1999* (ug/l)	DCE*** Dec-98 (ug/l)	DCE*** 1999* (ug/l)
CW-9	23,251,986	18,467,739	240	120	1,200	640	2,600	840	220	140
CW-13	32,764,439	27,663,595	120	96	1,100	1,100	280	270	730	730
CW-15A	1,706,763	1,396,591	11,000	12,000	15,000	14,000	1,700	2,000	1,200	1,900
CW-17	26,039,637	25,998,258	70	100	580	610	120	140	170	200
TOTALS	83,762,825	73,526,183								
MW-5	NA	NA	ND	ND	34	30	ND	ND	40	25
MW-6	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND
MW-37S	NA	NA	280	140	190	170	620	890	160	130
MW-37D	NA	NA	460	ND	760	1,200	1,900	2,200	260	ND
MW-38S	NA	NA	2	ND	7	1	ND	ND	ND	ND
MW-38D	NA	NA	16	ND	ND	79	ND	17	240	91
MW-39D	NA	NA	ND	ND	120	170	6	28	92	100
MW-51S	NA	NA	730	280	3,900	2,300	1,100	760	1,000	870
MW-51D	NA	NA	ND	39	1,000	1,100	86	90	1,200	920

Wells	% TCA** Dec-99	% TCE** Dec-99	% PCE** Dec-99	% DCE** Dec-99
CW-9	7	37	48	8
CW-13	4	49	12	32
CW-15A	37	43	6	6
CW-17	9	55	13	18
MW-5	0	54	0	45
MW-6	0	0	0	0
MW-37S	10	13	66	10
MW-37D	0	35	65	0
MW-38S	0	100	0	0
MW-38D	0	42	9	49
MW-39D	0	57	9	34
MW-51S	6	51	17	19
MW-51D	2	42	3	36

* - Collection wells sampled in 12/99, monitoring wells (MW) sampled in 9/99.
** - Represents the percent of the total volatile organic compound concentration
*** - Represents the concentration of cis-1,2-DCE
NA - Not Applicable/Analyzed
ND - Not Detected above method detection limit
ug/l - Micrograms per liter

APPENDIX A

Data Summary Tables

Table A-1,	Site-Wide Groundwater Levels and Elevation Data
Table A-2,	Site-Wide Groundwater Quality Summary
Table A-3,	Groundwater Quality Analyses, Collection Well Samples
Table A-4,	Water Quality Analyses, Packed Tower Aerator Samples
Table A-5,	Groundwater Quality Analyses, Off-Site Samples

Table A-I
Site-Wide Groundwater Levels and Elevation Data
Harley-Davidson Motor Company

Well	Reference Elevation (ft AMSL)	10/1/99		12/22-23/99		6/1/00	
		Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)
CW-1	570.88	NM	--	78.91	491.97	77.46	493.42
CW-1A	569.93	NM	--	62.80	507.13	NM	--
CW-2	557.79	NM	--	79.41	478.38	60.61	497.18
CW-3	519.43	NM	--	78.06	441.37	57.25	462.18
CW-4	542.32	NM	--	86.44	455.88	36.28	506.04
CW-5	472.06	NM	--	46.24	425.82	NM	--
CW-6	486.98	NM	--	69.28	417.70	55.10	431.88
CW-7	574.61	NM	--	82.94	491.67	82.06	492.55
CW-7A	574.71	NM	--	45.08	529.63	41.37	533.34
CW-8	363.84	NM	--	26.12	337.72	25.78	338.06
CW-9	360.79	NM	--	25.60	335.19	25.11	335.68
CW-10	417.43	36.27	381.16	38.07	379.36	37.26	380.17
CW-11	374.30	29.82	344.48	31.42	342.88	30.72	343.58
CW-12	362.06	19.40	342.66	21.12	340.94	18.56	343.50
CW-12A	362.18	20.12	342.06	21.30	340.88	18.20	343.98
CW-13	361.64	NM	--	35.44	326.20	36.35	325.29
CW-14	362.08	28.11	333.97	30.32	331.76	29.62	332.46
CW-15	362.81	22.35	340.46	23.80	339.01	23.18	339.63
CW-15A	362.57	NM	--	32.43	330.14	32.45	330.12
CW-16	364.32	NM	--	32.00	332.32	NM	--
CW-17	361.67	NM	--	29.97	331.70	29.37	332.30
CW-18	365.76	20.47	345.29	NM	--	21.23	344.53
MW-1	376.35	31.95	344.40	33.46	342.89	32.78	343.57
MW-2	509.44	64.08	445.36	63.85	445.59	63.30	446.14
MW-3	542.11	66.34	475.77	66.15	475.96	63.33	478.78
MW-4	397.82	38.17	359.65	37.64	360.18	30.55	367.27
MW-5	370.80	27.23	343.57	27.99	342.81	25.88	344.92
MW-6	361.06	17.89	343.17	20.55	340.51	29.08	331.98
MW-7	362.18	28.03	334.15	29.77	332.41	20.51	341.67
MW-8	360.55	19.65	340.90	20.88	339.67	20.47	340.08
MW-9	559.76	51.14	508.62	54.47	505.29	49.95	509.81
MW-10	568.75	44.97	523.78	59.26	509.49	56.28	512.47
MW-11	565.11	31.17	533.94	35.02	530.09	32.62	532.49
MW-12	536.69	42.48	494.21	47.84	488.85	38.29	498.40
MW-14	520.39	30.52	489.87	31.65	488.74	31.47	488.92
MW-15	524.90	60.50	464.40	60.39	464.51	60.35	464.55
MW-16S	517.50	33.42	484.08	41.99	475.51	34.52	482.98
MW-16D	517.50	5.08	512.42	13.81	503.69	4.02	513.48
MW-17	458.03	11.86	446.17	11.88	446.15	11.01	447.02
MW-18S	465.37	8.13	457.24	19.19	446.18	13.07	452.30
MW-18D	465.37	5.69	459.68	20.04	445.33	11.74	453.63
MW-19	428.20	22.93	405.27	22.78	405.42	21.76	406.44
MW-20S	575.34	45.47	529.87	45.71	529.63	42.01	533.33

Table A-1
Site-Wide Groundwater Levels and Elevation Data
Harley-Davidson Motor Company

Well	Reference Elevation (ft AMSL)	10/1/99		12/22-23/99		6/1/00	
		Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)
MW-20M	575.21	48.77	526.44	43.60	531.61	46.77	528.44
MW-20D	575.21	46.91	528.30	50.28	524.93	47.33	527.88
MW-21	426.76	39.77	386.99	42.22	384.54	31.01	395.75
MW-22	448.57	58.21	390.36	58.67	389.90	57.67	390.90
MW-23	374.07	29.27	344.80	30.64	343.43	29.84	344.23
MW-24	375.44	29.93	345.51	30.43	345.01	30.33	345.11
MW-25	381.73	8.94	372.79	11.60	370.13	9.02	372.71
MW-26	377.52	26.67	350.85	27.51	350.01	23.65	353.87
MW-27	362.26	19.52	342.74	21.00	341.26	19.97	342.29
MW-28	363.96	21.81	342.15	23.63	340.33	23.83	340.13
MW-29	365.63	14.83	350.80	23.23	342.40	22.44	343.19
MW-30	364.99	20.52	344.47	22.07	342.92	20.26	344.73
MW-31S	368.31	22.64	345.67	23.42	344.89	19.65	348.66
MW-31D	368.31	22.64	345.67	23.43	344.88	19.67	348.64
MW-32S	363.46	21.81	341.65	23.21	340.25	23.43	340.03
MW-32D	363.46	21.10	342.36	23.59	339.87	22.66	340.80
MW-33	364.94	22.65	342.29	24.52	340.42	24.63	340.31
MW-34S	362.12	19.90	342.22	21.61	340.51	21.79	340.33
MW-34D	362.12	20.00	342.12	21.78	340.34	22.00	340.12
MW-35S	361.58	dry	--	dry	--	dry	--
MW-35D	361.59	19.35	342.24	21.16	340.43	21.42	340.17
MW-36S	372.30	28.39	343.91	29.23	343.07	27.14	345.16
MW-36D	372.30	28.61	343.69	29.45	342.85	27.39	344.91
MW-37S	360.83	17.44	343.39	18.46	342.37	18.27	342.56
MW-37D	360.83	17.65	343.18	18.71	342.12	18.87	341.96
MW-38S	359.47	18.65	340.82	19.31	340.16	19.06	340.41
MW-38D	359.48	19.55	339.93	20.34	339.14	19.80	339.68
MW-39S	361.56	23.15	338.41	dry	--	dry	--
MW-39D	361.56	23.48	338.08	24.33	337.23	23.74	337.82
MW-40S	375.83	31.38	344.45	33.01	342.82	32.37	343.46
MW-40D	375.83	31.10	344.73	33.02	342.81	32.37	343.46
MW-41S	426.08	36.83	389.25	37.87	388.21	37.52	388.56
MW-41D	426.08	36.98	389.10	37.72	388.36	37.48	388.60
MW-42S	411.39	30.26	381.13	32.17	379.22	31.23	380.16
MW-42M	411.39	30.47	380.92	32.25	379.14	31.32	380.07
MW-42D	411.39	53.42	357.97	51.38	360.01	45.65	365.74
MW-43S	380.93	30.20	350.73	33.38	347.55	31.64	349.29
MW-43D	381.31	31.27	350.04	34.10	347.21	32.80	348.51
MW-44	417.37	31.90	385.47	33.18	384.19	32.71	384.66
MW-45	361.13	19.19	341.94	20.43	340.70	20.33	340.80
MW-46	360.25	18.05	342.20	19.45	340.80	19.48	340.77
MW-47	361.74	22.09	339.65	23.41	338.33	22.91	338.83
MW-48	362.85	22.03	340.82	22.03	340.82	22.12	340.73

Table A-1
Site-Wide Groundwater Levels and Elevation Data
Harley-Davidson Motor Company

Well	Reference Elevation (ft AMSL)	10/01/99		12/22-23/99		06/01/00	
		Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)
MW-49S	363.02	20.79	342.23	21.55	341.47	20.42	342.60
MW-49D	363.02	20.27	342.75	21.22	341.80	20.54	342.48
MW-50S	361.72	21.21	340.51	23.26	338.46	22.20	339.52
MW-50D	361.69	21.69	340.00	22.94	338.75	21.68	340.01
MW-51S	363.46	28.09	335.37	29.80	333.66	29.17	334.29
MW-51D	363.86	28.50	335.36	29.59	334.27	28.90	334.96
MW-52	368.52	12.01	356.51	15.38	353.14	12.36	356.16
MW-53	368.25	13.91	354.34	17.11	351.14	12.15	356.10
MW-54	364.98	24.20	340.78	25.93	339.05	26.33	338.65
MW-55	364.89	23.91	340.98	25.62	339.27	26.14	338.75
MW-56	373.03	21.49	351.54	23.22	349.81	21.54	351.49
MW-57	366.02	21.09	344.93	22.71	343.31	21.80	344.22
MW-59	373.19	29.47	343.72	30.36	342.83	28.33	344.86
MW-60	369.15	24.28	344.87	25.08	344.07	22.87	346.28
MW-61S	373.87	29.90	343.97	31.91	341.96	31.90	341.97
MW-61D	373.87	31.42	342.45	32.55	341.32	32.79	341.08
MW-62S	371.28	27.88	343.40	NM	--	NM	--
MW-62D	371.27	28.22	343.05	NM	--	NM	--
MW-63S	374.95	30.41	344.54	31.96	342.99	31.31	343.64
MW-63D	374.96	30.35	344.61	31.95	343.01	31.25	343.71
MW-64S	417.26	37.47	379.79	35.08	382.18	35.10	382.16
MW-64D	417.27	58.80	358.47	60.98	356.29	58.73	358.54
MW-65S	548.98	49.47	499.51	50.56	498.42	50.02	498.96
MW-65D	548.98	48.60	500.38	49.67	499.31	48.57	500.41
MW-66S	508.99	36.62	472.37	39.46	469.53	39.16	469.83
MW-66D	508.99	38.27	470.72	39.69	469.30	39.81	469.18
MW-67S	447.84	9.79	438.05	9.91	437.93	9.63	438.21
MW-67D	447.84	artesian	--	0.75-artesian	--	artesian	--
MW-68	459.01	7.11	451.90	7.15	451.86	6.04	452.97
MW-69	412.80	13.27	399.53	12.19	400.61	8.37	404.43
MW-70S	414.11	22.48	391.63	21.69	392.42	18.06	396.05
MW-70D	414.16	22.40	391.76	21.58	392.58	17.87	396.29
MW-71S	398.64	42.88	355.76	42.50	356.14	35.19	363.45
MW-71D	398.33	42.22	356.11	42.54	355.79	37.56	360.77
MW-72	387.99	57.71	330.28	51.98	336.01	48.08	339.91
MW-73	395.24	48.97	346.27	50.14	345.10	48.54	346.70
MW-74S	360.76	20.75	340.01	22.00	338.76	21.44	339.32
MW-74D	360.70	20.05	340.65	20.62	340.08	20.26	340.44
MW-75S	360.48	18.19	342.29	19.51	340.97	19.45	341.03
MW-75D	361.80	20.06	341.74	21.29	340.51	21.07	340.73
MW-76	362.29	22.87	339.42	23.81	338.48	23.33	338.96
MW-77	379.28	28.27	351.01	30.40	348.88	24.88	354.40
MW-78	367.89	19.19	348.70	19.85	348.04	15.78	352.11

Table A-1
Site-Wide Groundwater Levels and Elevation Data
Harley-Davidson Motor Company

Well	Reference Elevation (ft AMSL)	10/1/99		12/22-23/99		6/1/00	
		Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)	Depth (feet)	Water Level (ft AMSL)
MW-79	376.76	25.85	350.91	26.85	349.91	23.12	353.64
MW-80	371.21	25.41	345.80	27.58	343.63	26.40	344.81
MW-81S	360.97	18.56	342.41	20.35	340.62	20.46	340.51
MW-81D	360.75	18.12	342.63	19.80	340.95	19.60	341.15
MW-82	385.10	41.35	343.75	42.09	343.01	39.84	345.26
MW-83	364.82	17.79	347.03	18.45	346.37	15.69	349.13
MW-84	368.79	19.16	349.63	19.87	348.92	NM	--
MW-85	372.84	NM	--	NM	--	30.52	342.32
MW-86S	407.42	14.60	392.82	14.63	392.79	11.32	396.10
MW-86D	407.48	9.83	397.65	9.76	397.72	8.69	398.79
MW-87	371.56	26.20	345.36	27.84	343.72	26.87	344.69
MW-88	369.34	NM	--	NM	--	26.44	342.90
MW-89	376.13	NM	--	NM	--	32.65	343.48
MW-90	383.57	NM	--	NM	--	39.06	344.51
MW-91	501.75	NM	--	NM	--	55.05	446.70
MW-92	477.51	NM	--	NM	--	82.66	394.85
WPL-SS-2	363.21	NM	--	DRY	--	NM	--
WPL-SS-7	361.92	NM	--	26.27	335.65	NM	--
WPL-SS-8	365.26	NM	--	27.54	337.72	NM	--

NM = Not Measured

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	CW-12 N.A. 09/21/99 Result	CW-12 TA0D0P006006 03/29/2000 Result	CW-12A N.A. 09/21/99 Result	CW12A TA0D0P008005 03/30/2000 Result	CW-15 N.A. 09/30/99 Result	CW-15 TA0D0P299001 04/10/2000 Result	MW-1 N.A. 09/21/99 Result	MW-1 TA0C0P885003 03/28/2000 Result	MW-2 N.A. 09/21/99 Result	MW-2 TA0D0P008008 03/30/2000 Result	MW-3 N.A. 09/22/99 Result	MW-3 TA0D0P094012 04/03/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	47	27	8	6	7900	2100	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	6	29	25	890	350	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	4	10	11	420	170	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	$N.D._1$	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	72	70	120	38	1300	570	N.D.	4	98	130	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	85	28	180	74	18000	6300	36	15	57	37	99	72
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	32	26	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	81	N.A.	100	N.A.	1700	N.A.	7	N.A.	N.D.	N.A.	N.D.	N.A.
TOTAL VOCs	µg/l	285	135	447	154	30242	9516	43	19	155	167	99	72
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N.D. - Not detected
N.A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID		MW-4	MW-4	MW-5	MW-5	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	MW-10	MW-10
LAB ID		N.A.	TA0D0P006005	N.A.	TA0C0P851002	N.A.	TA0C0P706004	N.A.	TA0D0P127017	N.A.	TA0D0P127009	N.A.	TA0C0P851005
SAMPLE DATE		09/28/99	03/29/2000	09/14/99	03/27/2000	09/21/99	03/23/2000	09/28/99	04/05/2000	09/29/99	04/04/2000	N.A.	03/27/2000
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	6	1	N.D.	N.D.	N.D.	N.D.	1500	1200	160	63	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	1	1	N.D.	72	8	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	1	N.D.	N.D.	N.D.	500	590	22	16	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	4	N.D.	N.D.	N.D.	N.D.	580	680	1400	710	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	65	20	30	1	N.D.	N.D.	4000	3500	860	690	24	540
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	29	N.A.	25	N.A.	N.D.	N.A.	570	N.A.	180	N.A.	160	N.A.
TOTAL VOCs	µg/l	100	25	56	1	1	1	7150	6042	2630	1479	184	540
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N.D - Not detected
N.A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-12 N.A. 09/20/99 Result	MW-12 TA0D0P094011 04/03/2000 Result	MW-17 N.A. 09/14/99 Result	MW-17 TA0C0P706001 03/23/2000 Result	MW-19 N.A. 09/22/99 Result	MW-19 TA0D0P094007 04/03/2000 Result	MW-21 N.A. 09/22/99 Result	MW-21 TA0D0P009007 03/31/2000 Result	MW-22 N.A. 09/22/99 Result	MW-22 TA0D0P006002 03/29/2000 Result	MW-23 N.A. 09/22/99 Result	MW-23 TA0C0P851003 03/27/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	$N.D._4$	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	11	3	N.D.	N.D.	7	N.D.	N.D.	N.D.	8	1	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	140	96	83	75	410	350	42	N.D.	43	11	10	N.D.
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	9	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	1	N.A.
TOTAL VOCs	µg/l	160	99	83	75	417	350	42	0	51	12	11	0
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-24 N.A. 09/22/99 Result	MW-24 TA0D0P009006 03/31/2000 Result	MW-25 N.A. 09/27/99 Result	MW-25 TA0C0P706002 03/23/2000 Result	MW-26 N.A. 09/27/99 Result	MW-26 TA0D0P094004 04/03/2000 Result	MW-27 N.A. 09/27/99 Result	MW-27 TA0D0P175004 04/05/2000 Result	MW-28 N.A. 09/28/99 Result	MW-28 TA0C0P783001 03/24/2000 Result	MW-29 N.A. 09/29/99 Result	MW-29 TA0C0P731006 03/22/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	9	N.D.	N.D.	32	21	N.D.	N.D.	72	53	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3	28	31	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	8	N.D.	N.D.	64	57	N.D.	2	110	120	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	2	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	3	N.D.	N.D.	N.D.	N.D.	230	240	N.D.	3	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	52	180	3	6	1100	680	160	160	41	36	N.D.	N.D.
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	12	N.A.	N.D.	N.A.	120	N.A.	160	N.A.	8	N.A.	N.D.	N.A.
TOTAL VOCs	µg/l	64	200	3	6	1316	758	550	407	259	246	0	0
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-30 N.A. 09/27/99 Result	MW-30 TA0C0P731008 03/22/2000 Result	MW-31D N.A. 09/27/99 Result	MW-31D TA0D0P094002 04/03/2000 Result	MW-31S N.A. 09/27/99 Result	MW-31S TA0C0P783004 03/24/2000 Result	MW-32D N.A. 09/28/99 Result	MW-32D TA0D0P216005 04/06/2000 Result	MW-32S N.A. 09/29/99 Result	MW-32S TA0D0P216004 04/06/2000 Result	MW-33 N.A. 09/28/99 Result	MW-33 TA0C0P885006 03/28/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	4	3	96	86	370	330	7	14
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	10	7	N.D.	56	24	29	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	65	52	130	150	32	53	5	11
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	$N.D._1$	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	N.D.	12	15	1	2	100	78	27	47	7	14
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	N.D.	N.D.	680	630	9	9	1600	1200	330	580	140	280
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	4	3	N.D.	54	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	400	N.A.	5	N.A.	800	N.A.	74	N.A.	30	N.A.
TOTAL VOCs	µg/l	0	0	1092	645	98	76	2726	1624	857	1039	189	320
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-34D N.A. 09/28/99 Result	MW-34D TA0D0P175006 04/05/2000 Result	MW-34S N.A. 09/14/99 Result	MW-34S TA0C0P783002 03/24/2000 Result	MW-35D N.A. 09/29/99 Result	MW-35D TA0D0P127012 04/04/2000 Result	MW-36D N.A. 09/27/99 Result	MW-36D TA0D0P127002 04/04/2000 Result	MW-36S N.A. 09/27/99 Result	MW-36S TA0C0P782004 03/23/2000 Result	MW-37D N.A. 09/17/99 Result	MW-37D TA0D0P216014 04/07/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	19	14	5	6	7	6	N.D.	N.D.	N.D.	N.D.	N.D.	870
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	3	N.D.	1	N.D.	2	N.D.	N.D.	2	2	N.D.	22
1,1-DICHLOROETHENE	µg/l	13	12	1	3	6	5	N.D.	N.D.	N.D.	1	N.D.	55
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	2	N.D.	2	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	97	120	50	110	51	36	N.D.	N.D.	N.D.	N.D.	2200	12000
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	330	210	85	120	170	130	330	460	1	82	1200	5100
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	120	N.A.	15	N.A.	63	N.A.	270	N.A.	2	N.A.	N.D.	N.A.
TOTAL VOCs	µg/l	579	361	156	242	297	180	600	460	5	88	3400	18047
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

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VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-37S N.A. 09/14/99 Result	MW-37S TA0D0P094005 04/03/2000 Result	MW-38D N.A. N.A. Result	MW-38D TA0D0P006004 03/29/2000 Result	MW-38S N.A. 09/14/99 Result	MW-38S TA0C0P706003 03/23/2000 Result	MW-39D N.A. 09/20/99 Result	MW-39D TA0D0P008004 03/30/2000 Result	MW-40D N.A. 09/15/99 Result	MW-40D TA0D0P008006 03/30/2000 Result	MW-40S N.A. 09/21/99 Result	MW-40S TA0D0P008009 03/30/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	140	96	N.D.	3	N.D.	N.D.	N.D.	6	6	3	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	6	N.D.	N.D.	2	N.D.	N.D.	N.D.	2	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3	2	2	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	3	2	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	$N.D._{1}$	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	890	680	17	2	N.D.	N.D.	28	120	2	2	1	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	170	94	79	36	1	1	170	730	120	63	12	2
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	130	N.A.	91	N.A.	N.D.	N.A.	100	N.A.	20	N.A.	3	N.A.
TOTAL VOCs	µg/l	1340	870	187	43	1	1	298	861	153	72	16	2
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N A - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-41D N.A. 09/20/99 Result	MW-41D TA0D0P006009 03/29/2000 Result	MW-41S N.A. 09/20/99 Result	MW-41S TA0D0P006008 03/29/2000 Result	MW-42D N.A. 09/21/99 Result	MW-42D TA0D0P008010 03/30/2000 Result	MW-42M N.A. 09/17/99 Result	MW-42M TA0D0P006007 03/29/2000 Result	MW-42S N.A. 09/28/99 Result	MW-42S TA0C0P851004 03/27/2000 Result	MW-43D N.A. N.A. Result	MW-43D TA0D0P216007 04/06/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	13	4	10	2	2	N.D.	5	4	N.D.	N.D.	8	5
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	38	17	30	12	26	N.D.	81	56	54	1	380	380
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	N.D.	N.A.	5	N.A.	10	N.A.	N.D.	N.A.	23	N.A.
TOTAL VOCs	µg/l	51	21	40	14	34	0	96	60	54	1	411	385
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-43S N.A. N.A. Result	MW-43S TA0C0P731003 03/22/2000 Result	MW-44 N.A. 09/22/99 Result	MW-44 TA0C0P782003 03/23/2000 Result	MW-45 N.A. 09/30/99 Result	MW-45 TA0C0P782005 03/23/2000 Result	MW-46 N.A. 09/29/99 Result	MW-46 TA0D0P127004 04/04/2000 Result	MW-47 N.A. 09/29/99 Result	MW-47 TA0D0P009004 03/31/2000 Result	MW-50D N.A. 09/28/99 Result	MW-50D TA0D0P127014 04/04/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	6	N.D.	N.D.	N.D.	12	12
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	140	530
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	9	N.D.	56	200
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	70	31	890	1000	150	110	5	54
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	1	N.D.	8	7	21	6	200	250	200	30	220	1400
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	24	19
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	N.D.	N.A.	8	N.A.	100	N.A.	75	N.A.	620	N.A.
TOTAL VOCs	µg/l	1	0	8	7	99	37	1196	1250	434	140	1077	2215
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-50S N.A. 09/28/99 Result	MW-50S TA0D0P216003 04/06/2000 Result	MW-51D N.A. 09/21/99 Result	MW-51D TA0D0P216008 04/06/2000 Result	MW-51S N.A. 09/20/99 Result	MW-51S TA0D0P175005 04/05/2000 Result	MW-52 N.A. 09/28/99 Result	MW-52 TA0C0P731009 03/22/2000 Result	MW-53 N.A. 09/28/99 Result	MW-53 TA0C0P731004 03/22/2000 Result	MW-54 N.A. 09/29/99 Result	MW-54 TA0D0P299002 04/10/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	11	31	39	28	280	220	N.D.	N.D.	N.D.	N.D.	150	60
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	71	61	210	160	26	21	1	N.D.	N.D.	N.D.	27	11
1,1-DICHLOROETHENE	µg/l	51	49	230	180	270	230	N.D.	N.D.	N.D.	N.D.	300	99
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	$N.D._1$	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	14	N.D.	90	32	760	990	N.D.	N.D.	N.D.	N.D.	62	96
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	270	N.D.	1100	400	2300	2500	N.D.	N.D.	N.D.	N.D.	510	780
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	37	28	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	620	N.A.	920	N.A.	870	N.A.	N.D.	N.A.	N.D.	N.A.	170	N.A.
TOTAL VOCs	µg/l	1037	141	2589	837	4534	3961	1	0	0	0	1219	1046
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N.D. - Not detected
N.A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID		MW-56	MW-56	MW-57	MW-57	MW-59	MW-59	MW-60	MW-60	MW-61D	MW-61D	MW-61S	MW-61S
LAB ID		N.A.	TA0D0P008002	N.A.	TA0D0P094006	N.A.	TA0D0P127011	N.A.	TA0D0P127005	N.A.	TA0C0P782002	N.A.	TA0C0P731002
SAMPLE DATE		09/30/99	03/30/2000	09/29/99	04/03/2000	09/21/99	04/04/2000	09/29/99	04/04/2000	09/27/99	03/23/2000	09/27/99	03/22/2000
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	8	5	14	2	N.D.	4	23	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	20	25	N.D.	N.D.	N.D.	5	20	14	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	5	32	8	N.D.	14	71	47	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	3	N.D.	2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	1	14	4	81	76	370	210	N.D.	N.D.	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	140	100	330	84	260	250	1700	970	5	7	N.D.	N.D.
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	6	22	N.D.	N.D.	N.D.	N.D.	43	18	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	120	N.A.	84	N.A.	110	N.A.	2300	N.A.	N.D.	N.A.	N.D.	N.A.
TOTAL VOCs	µg/l	294	158	474	101	451	351	4527	1259	5	7	0	0
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N.D. - Not detected
N.A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-64D N.A. 09/17/99 Result	MW-64D TA0D0P216006 04/06/2000 Result	MW-64S N.A. 09/21/99 Result	MW-64S TA0D0P296002 04/10/2000 Result	MW-65D N.A. 09/07/99 Result	MW-65D TA0C0P851006 03/27/2000 Result	MW-65S N.A. 09/07/99 Result	MW-65S TA0D0P127010 04/04/2000 Result	MW-66D N.A. 09/09/99 Result	MW-66D TA0C0P885005 03/28/2000 Result	MW-66S N.A. 09/09/99 Result	MW-66S TA0C0P885004 03/28/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.D.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.D.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.D.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	370	220	170	N.D.	N.D.	4	3	1	N.D.	1	1
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.D.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	1400	1500	500	370	33	26	180	130	36	24	41	32
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.A.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	N.D.	1.3	N.D.	N.A.	1	N.A.	N.D.	N.A.	N.D.	N.A.
TOTAL VOCs	µg/l	1400	1870	720	541.3	33	26	185	133	37	24	42	33
Cyanide	mg/l	N.D.	N.D.		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.		N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N D - Not detected
N A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-67D N.A. 09/07/99 Result	MW-67D TA0D0P006003 03/29/2000 Result	MW-67S N.A. 09/07/99 Result	MW-67S TA0D0P009003 03/31/2000 Result	MW-68 N.A. 09/09/99 Result	MW-68 TA0C0P885007 03/28/2000 Result	MW-69 N.A. 09/09/99 Result	MW-69 TA0D0P127003 04/04/2000 Result	MW-70D N.A. 09/10/99 Result	MW-70D TA0D0P094008 04/03/2000 Result	MW-70S N.A. 09/10/99 Result	MW-70S TA0D0P094009 04/03/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	N.D.	N.D.	260	250	N.D.	N.D.	1	N.D.	N.D.	N.D.	12	8
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	7	7	N.D.	N.D.	2	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	39	51	N.D.	N.D.	5	N.D.	N.D.	N.D.	3	4
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	1	2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	N.D.	N.D.	27	22	N.D.	N.D.	2	N.D.	9	9	51	15
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	93	73	96	87	39	78	340	600	250	210	290	85
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	N.D.	N.A.	2	N.A.	24	N.A.	8	N.A.	35	N.A.
TOTAL VOCs	µg/l	93	73	430	419	41	78	374	600	267	219	391	112
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-71D N.A. 09/10/99 Result	MW-71D TA0D0P175007 04/05/2000 Result	MW-72 N.A. 09/13/99 Result	MW-72 TA0C0P885002 03/28/2000 Result	MW-73 N.A. 09/13/99 Result	MW-73 TA0C0P783003 03/24/2000 Result	MW-74D N.A. 09/15/99 Result	MW-74D TA0D0P216002 04/06/2000 Result	MW-74S N.A. N.A. Result	MW-74S TA0D0P094010 04/03/2000 Result	MW-75D N.A. N.A. Result	MW-75D TA0D0P216012 04/07/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	7	1	N.D.	N.D.	N.D.	N.D.	38	17	11	4	270	280
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	6	4	1	1	N.D.	0
1,1-DICHLOROETHENE	µg/l	4	N.D.	N.D.	N.D.	N.D.	N.D.	15	12	3	2	N.D.	40
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	10	10	2	4	N.D.	N.D.	17	15	17	8	6200	10000
TOLUENE	µg/l	N.D.	N.A.	1	N.A.	N.D.	N.A.	1	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	220	290	9	16	8	9	280	200	170	120	3200	4700
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	23	N.A.	N.D.	N.A.	2	N.A.	100	N.A.	68	N.A.	220	N.A.
TOTAL VOCs	µg/l	264	301	12	20	10	9	458	248	270	135	9890	15020
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter
mg/l - milligrams per liter
N.D. - Not detected
N.A. - Not available
* - All data provided by Langan Environmental Services, Inc.
** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID		MW-75S	MW-75S	MW-76	MW-76	MW-77	MW-77	MW-78	MW-78	MW-79	MW-79	MW-80	MW-80
LAB ID		N.A.	TA0D0P216013	N.A.	TA0C0P885009	N.A.	TA0C0P783005	N.A.	TA0C0P731007	N.A.	TA0C0P782001	N.A.	TA0C0P885008
SAMPLE DATE		N.A.	04/07/2000	09/14/99	03/28/2000	09/10/99	03/24/2000	09/09/99	03/22/2000	09/13/99	03/23/2000	09/10/99	03/28/2000
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	1200	1600	2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	21	1	N.D.	N.D.	N.D.	N.D.	N.D.	12	16	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	160	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	21	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	2100	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	140	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	100	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	30000	32000	20	6	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	180	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	15000	13000	74	19	N.D.	1	N.D.	N.D.	4	5	13	3
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	13	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	N.D.	N.A.	19	N.A.	N.D.	N.A.	N.D.	N.A.	22	N.A.	3	N.A.
TOTAL VOCs	µg/l	46200	46794	116	25	2520	23	0	0	38	21	16	3
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID		MW-81D	MW-81D	MW-81S	MW-81S	MW-82	MW-82	MW-83	MW-83	MW-84	MW-84	MW-85	MW-86D	MW-86D
LAB ID		N.A.	TA0D0P127006	N.A.	TA0D0P127007	N.A.	TA0D0P009002	N.A.	TA0C0P731005	N.A.	TA0D0P008003	TA0D0P341002	N.A.	TA0D0P094003
SAMPLE DATE		09/13/99	04/04/2000	09/13/99	04/04/2000	09/10/99	03/31/2000	09/13/99	03/22/2000	09/09/99	03/30/2000	04/11/2000	09/07/99	04/03/2000
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	3	N D.	3	N.D.	N.D.	N.D.	N.D.	N.D.	1	1	N.D.	4	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N D.	N D.	N.D.	N.D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N D.	N D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N D	N.D.	N D
1,1-DICHLOROETHANE	µg/l	12	N D.	34	24	N.D.	N.D.	7	5	2	3	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	16	N.D.	47	37	N.D.	N D.	5	3	N.D.	N.D.	N.D.	2	N.D.
1,2-DICHLOROETHANE	µg/l	N D	N.D.	1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N D	N.D	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N D.	N.D.	N.D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N A	N.A.	N.A.	N A.	N.A.	N.A.	N.A.	N A	N.A.	N A	N.A.	N.A.	N.A
BENZENE	µg/l	N D.	N A.	N.D.	N.A.	N D.	N.A.	N.D.	N.A.	N.D.	N A	N.D.	N.D.	N.A.
BROMODICHLOROMETHANE	µg/l	N D	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N D.	N D.	N.D.	N D.	N D.	N D.	N.D.	N.D.	N.D.	N D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N D	N D.	N D	N.D.	N D.	N D.	N.D.	N.D.	N.D.	N.D.	N D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	3	N.D.	2	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D
CHLOROBENZENE	µg/l	N D	N D.	N D	N.D.	N.D.	N D	N D.	N.D.	N D.	N.D.	N.D.	N.D.	N D.
CHLOROETHANE	µg/l	N D.	N.D.	N D.	N.D.	N D.	N.D.	N.D.	N.D	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	3	N.D.	2	10	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N D.	N A.	N.D.	N.A.	N D.	N A	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N D.	N D.	N.D.	N D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N D.	N.D.	N D.	N.D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N D.	N A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.A.
METHYLENE CHLORIDE	µg/l	N D.	N D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	130	89	99	86	4	3	N.D.	N.D.	8	8	N.D.	4	N.D.
TOLUENE	µg/l	N D.	N A.	N D.	N A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	[1] N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N A.	N A.	N A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	1500	930	4200	3100	140	94	N.D.	N.D.	240	270	190	830	940
TRICHLOROFLUOROMETHANE	µg/l	N A.	N D.	N A.	N D.	N.A.	N.D.	N.A.	N.D.	N.A.	N.D.	N A.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N D.	N D.	4	N D.	N.D.	N.D.	4	110	N.D.	N.D.	N D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	400	N A.	860	N A.	140	N.A.	550	N.A.	270	N.A.	140	37	N.A.
TOTAL VOCs	µg/l	2067	1019	5252	3257	284	97	566	118	521	282	330	877	940
Cyanide	mg/l	N D	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N D	N D.	N D.	N D	N D.	N.D.	N D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N D. - Not detected

N A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

[1] I

TABLE A-2

GROUNDWATER QUALITY ANALYSES*

SITE-WIDE GROUNDWATER QUALITY SUMMARY (July 1, 1999 - December 31, 2000)

VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS

Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	MW-86S N.A. 09/07/99 Result	MW-86S TA0D0P009005 03/31/2000 Result	MW-87 N.A 09/17/99 Result	MW-87 TA0D0P127008 04/04/2000 Result	MW-88 TA0D0P296004 04/10/2000 Result	MW-89 TA0D0P341004 04/11/2000 Result	MW-90 TA0D0P341003 04/11/2000 Result	MW-91 TA0D0P296003 04/10/2000 Result	MW-92 TA0D0P296005 04/10/2000 Result	RW-2 N.A. 09/30/99 Result	RW-2 TA0D0P008007 03/30/2000 Result	RW-5 N.A. 09/30/99 Result	RW-5 TA0D0P009001 03/31/2000 Result
1,1,1-TRICHLOROETHANE	µg/l	2	N.D.	170	130	10	13	5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2,2-TETRACHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1,2-TRICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHANE	µg/l	N.D.	N.D.	10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,1-DICHLOROETHENE	µg/l	N.D.	N.D.	88	110	6	6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROPROPANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2-CHLOROETHYL VINYL ETHER	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
BENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.
BROMODICHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
BROMOMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CARBON TETRACHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROBENZENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROFORM	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
CHLOROMETHANE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.
CIS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
DIBROMOCHLOROMETHANE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
ETHYLBENZENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.
METHYLENE CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TETRACHLOROETHENE	µg/l	5	6	49	37	12	N.D.	N.D.	200	93	N.D.	N.D.	N.D.	N.D.
TOLUENE	µg/l	N.D.	N.A.	N.D.	N.A.	N.D.	N.D.	N.D.	N.D.	N.D.	N.A.	N.A.	N.A.	N.A.
TRANS-1,2-DICHLOROETHENE**	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS-1,3-DICHLOROPROPENE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
TRICHLOROETHENE	µg/l	200	85	2300	2200	180	190	55	69	140	3	2	4	4
TRICHLOROFLUOROMETHANE	µg/l	N.A.	N.D.	N.A.	N.D.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.D.	N.A.	N.D.
VINYL CHLORIDE	µg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
1,2-DICHLOROETHENE**	µg/l	16	N.A.	1100	N.A.	31	34	N.D.	N.D.	2.8	N.A.	N.A.	N.A.	N.A.
TOTAL VOCs	µg/l	223	91	3717	2477	244	243	60	269	235.8	3	2	4	4
Cyanide	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Cyanide (Weak Acid Dissociable)	mg/l	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

µg/l - micrograms per liter

mg/l - milligrams per liter

N.D. - Not detected

N.A. - Not available

* - All data provided by Langan Environmental Services, Inc.

** - Indicates that 1,2-Dichloroethene (1,2-DCE) was reported as total 1,2-DCE.

TABLE A-3
GROUNDWATER QUALITY ANALYSES
COLLECTION WELL SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	CW-1 T99-L0-P694-003 12/22/99 Result	CW-1 157572-1 06/02/00 Result	CW-1 169576-4 12/01/00 Result	CW-1A T99-L0-P694-004 12/22/99 Result	CW-1A 157572-2 06/02/00 Result	CW-1A 169576-3 12/01/00 Result	CW-2 T99-L0-P694-005 12/22/99 Result	CW-2 157572-3 06/02/00 Result	CW-2 169576-5 12/01/00 Result
1,1,1-Trichloroethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,1,2,2-Tetrachloroethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,1,2-Trichloroethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,1-Dichloroethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,1-Dichloroethene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,2-Dichloroethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
1,2-Dichloropropane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
2-Chloroethyl vinyl ether	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Benzene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Bromodichloromethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Bromoform	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Bromomethane	µg/l	N.D.@20	N.D.@20	N.D.@2	N.D.@20	N.D.@2	N.D.@10	N.D.@20	N.D.@2	N.D.@2
Carbon tetrachloride	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Chlorobenzene	µg/l	N.D.@20	N.D.@20	N.D.@1	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1
Chloroethane	µg/l	N.D.@20	N.D.@20	N.D.@1	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1
Chloroform	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Chloromethane	µg/l	N.D.@20	N.D.@20	N.D.@1	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1
cis-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2
Dibromochloromethane	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Ethylbenzene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
Methylene Chloride	µg/l	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2
Tetrachloroethene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	4.4	N.D.@5	N.D.@10	1.6	N.D.@1
Toluene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
trans-1,2-Dichloroethene	µg/l	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1
trans-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@2
Trichloroethene	µg/l	110	119	95	350	482	509	53	69	75
Trichlorofluoromethane	µg/l	N.A.	N.A.	N.D.@1	N.A.	N.A.	N.D.@5	N.A.	N.A.	N.D.@1
Vinyl chloride	µg/l	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2
cis-1,2-Dichloroethene	µg/l	8.2	7.5	7.2	N.D.@10	6	N.D.@5	24	19	25
TOTAL VOCs	µg/l	118.2	126.5	102.2	350	492.4	509	77	89.6	100

Notes:
N.A. - Not analyzed
N.D.@1 - Not detected at indicated concentration
* - indicates that the December 2000 results are for total 1,3-Dichloropropene

TABLE A-3
GROUNDWATER QUALITY ANALYSES
COLLECTION WELL SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	CW-3 T99-L0-P694-006 12/22/99 Result	CW-3 157572-4 06/02/00 Result	CW-3 169576-6 12/01/00 Result	CW-4 T99-L0-P694-007 12/22/99 Result	CW-4 157572-5 06/02/00 Result	CW-4 169576-7 12/01/00 Result	CW-5 T99-L0-P694-008 12/22/99 Result	CW-5 157572-6 06/02/00 Result	CW-5 169576-8 12/01/00 Result
1,1,1-Trichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,1,2,2-Tetrachloroethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,1,2-Trichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,1-Dichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,1-Dichloroethene	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,2-Dichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
1,2-Dichloropropane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
2-Chloroethyl vinyl ether	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Benzene	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Bromodichloromethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Bromoform	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Bromomethane	µg/l	N.D.@20	N.D.@2	N.D.@2	N.D.@20	N.D.@2	N.D.@2	N.D.@20	N.D.@2	N.D.@2
Carbon tetrachloride	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Chlorobenzene	µg/l	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1
Chloroethane	µg/l	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1
Chloroform	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Chloromethane	µg/l	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1	N.D.@20	N.D.@1	N.D.@1
cis-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2
Dibromochloromethane	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Ethylbenzene	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
Methylene Chloride	µg/l	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2
Tetrachloroethene	µg/l	N.D.@10	5.6	1.2	N.D.@10	12	5.1	6.1	9.1	4.8
Toluene	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
trans-1,2-Dichloroethene	µg/l	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1	N.D.@10	N.D.@1	N.D.@1
trans-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@1	N.D.@2	N.D.@10	N.D.@1	N.D.@2	N.D.@10	N.D.@1	N.D.@2
Trichloroethene	µg/l	110	123	32	110	116	156	21	39	23
Trichlorofluoromethane	µg/l	N.A.	N.A.	N.D.@1	N.A.	N.A.	N.D.@1	N.A.	N.A.	N.D.@1
Vinyl chloride	µg/l	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2	N.D.@10	N.D.@2	N.D.@2
cis-1,2-Dichloroethene	µg/l	32	35	27	57	42	32	23	12	20
TOTAL VOCs	µg/l	142	163.6	60.2	167	170	193.1	50.1	60.1	47.8

Notes:
N.A. - Not analyzed
N.D.@1 - Not detected at indicated concentration
* - indicates that the December 2000 results are for total 1,3-Dichloropropene

TABLE A-3
GROUNDWATER QUALITY ANALYSES
COLLECTION WELL SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	CW-6 T99-L0-P694-009 12/22/99 Result	CW-6 157572-7 06/02/00 Result	CW-6 169576-9 12/01/00 Result	CW-7 T99-L0-P694-010 12/22/99 Result	CW-7 157572-8 06/02/00 Result	CW-7 169576-10 12/01/00 Result	CW-7A T99-L0-P694-011 12/22/99 Result	CW-7A 157572-9 06/02/00 Result	CW-7A 169576-11 12/01/00 Result
1,1,1-Trichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,1,2,2-Tetrachloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,1,2-Trichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,1-Dichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,1-Dichloroethene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,2-Dichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
1,2-Dichloropropane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
2-Chloroethyl vinyl ether	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Benzene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Bromodichloromethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Bromoform	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Bromomethane	µg/l	N.D.@20	N.D.@2	N.D.@10	N.D.@20	N.D.@2	N.D.@2	N.D.@200	N.D.@2	N.D.@10
Carbon tetrachloride	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Chlorobenzene	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1	N.D.@200	N.D.@1	N.D.@5
Chloroethane	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1	N.D.@200	N.D.@1	N.D.@5
Chloroform	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Chloromethane	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@1	N.D.@200	N.D.@1	N.D.@5
cis-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2	N.D.@100	N.D.@2	N.D.@10
Dibromochloromethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Ethylbenzene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
Methylene Chloride	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2	N.D.@100	N.D.@2	N.D.@10
Tetrachloroethene	µg/l	120	393	102	N.D.@10	N.D.@1	N.D.@1	N.D.@100	21	28
Toluene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
trans-1,2-Dichloroethene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@1	N.D.@100	N.D.@1	N.D.@5
trans-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@2	N.D.@100	N.D.@1	N.D.@10
Trichloroethene	µg/l	100	117	67	90	114	104	430	869	115
Trichlorofluoromethane	µg/l	N.A.	N.A.	N.D.@5	N.A.	N.A.	N.D.@1	N.A.	N.A.	N.D.@5
Vinyl chloride	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@2	N.D.@100	N.D.@2	N.D.@10
cis-1,2-Dichloroethene	µg/l	59	59	55	5.3	6	3.9	N.D.@100	21	28
TOTAL VOCs	µg/l	279	569	224	95.3	120	107.9	430	911	171

Notes:
N.A. - Not analyzed
N.D.@1 - Not detected at indicated concentration
* - indicates that the December 2000 results are for total 1,3-Dichloropropene

TABLE A-3
GROUNDWATER QUALITY ANALYSES
COLLECTION WELL SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley-Davidson Motor Company

SAMPLE ID		CW-8	CW-8	CW-8	CW-9	CW-9	CW-9	CW-13	CW-13	CW-13
LAB ID		T99-L0-P694-001	157572-10	169576-1	T99-L0-P694-016	157572-11	169576-12	T99-L0-P694-017	157572-12	169577-1
SAMPLE DATE		12/22/99	06/02/00	12/01/00	12/22/99	06/02/00	12/01/01	12/22/99	06/02/00	12/01/01
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-Trichloroethane	µg/l	N.D.@10	40	28	120	101	331	96	93	70
1,1,2,2-Tetrachloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
1,1,2-Trichloroethane	µg/l	N.D.@10	1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	1	N.D.@10
1,1-Dichloroethane	µg/l	N.D.@10	3.7	N.D.@5	N.D.@10	5.5	18	10	9.7	N.D.@10
1,1-Dichloroethene	µg/l	N.D.@10	16	11	13	12	46	34	38	36
1,2-Dichloroethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
1,2-Dichloropropane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
2-Chloroethyl vinyl ether	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Benzene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Bromodichloromethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Bromoform	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Bromomethane	µg/l	N.D.@20	N.D.@2	N.D.@10	N.D.@20	N.D.@2	N.D.@20	N.D.@20	N.D.@2	N.D.@20
Carbon tetrachloride	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Chlorobenzene	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	1.3	N.D.@20	N.D.@20	N.D.@1	N.D.@20
Chloroethane	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@20	N.D.@20	N.D.@1	N.D.@20
Chloroform	µg/l	N.D.@10	1.1	N.D.@5	N.D.@10	1.3	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Chloromethane	µg/l	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@20	N.D.@20	N.D.@1	N.D.@20
cis-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10
Dibromochloromethane	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Ethylbenzene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Methylene Chloride	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10
Tetrachloroethene	µg/l	51	47	23	840	1310	2640	270	448	248
Toluene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
trans-1,2-Dichloroethene	µg/l	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@10	N.D.@10	6.2	N.D.@10
trans-1,3-Dichloropropene*	µg/l	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10
Trichloroethene	µg/l	450	679	300	640	713	1250	1100	1850	966
Trichlorofluoromethane	µg/l	N.A.	N.A.	N.D.@5	N.A.	N.A.	N.D.@10	N.A.	N.A.	N.D.@10
Vinyl chloride	µg/l	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	28	7.1	N.D.@20
cis-1,2-Dichloroethene	µg/l	95	81	63	140	112	377	730	1050	716
TOTAL VOCs	µg/l	596	868.8	425	1753	2256.1	4662	2268	3503	2036

Notes:
N.A. - Not analyzed
N.D.@1 - Not detected at indicated concentration
* - indicates that the December 2000 results are for total 1,3-Dichloropropene

TABLE A-3
GROUNDWATER QUALITY ANALYSES
COLLECTION WELL SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley-Davidson Motor Company

SAMPLE ID LAB ID SAMPLE DATE ANALYTE	Units	CW-15A T99-L0-P694-015 12/22/99 Result	CW-15A 157571-2 06/02/00 Result	CW-15A 169577-3 12/01/01 Result	CW-16 T99-L0-P694-002 12/22/99 Result	CW-16 157571-7 06/02/00 Result	CW-16 169576-2 12/01/00 Result	CW-17 T99-L0-P694-018 12/22/99 Result	CW-17 157571-1 06/02/00 Result	CW-17 169577-2 12/01/00 Result	TRIP BLANK T99-L0-P694-020 12/22/99 Result	TRIP BLANK 06/02/00 Result
1,1,1-Trichloroethane	µg/l	12000	11600	8380	N.D.@100	55	33	100	99	69	N.D.@10	N.D.@1
1,1,2.2-Tetrachloroethane	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
1,1,2-Trichloroethane	µg/l	N.D.@100	3.7	N.D.@100	N.D.@100	1.3	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
1,1-Dichloroethane	µg/l	110	102	N.D.@100	N.D.@100	5.1	N.D.@5	N.D.@10	10	8.0	N.D.@10	N.D.@1
1,1-Dichloroethene	µg/l	2800	2070	1550	N.D.@100	42	22	57	51	33	N.D.@10	N.D.@1
1,2-Dichloroethane	µg/l	N.D.@100	14	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
1,2-Dichloropropane	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
2-Chloroethyl vinyl ether	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Benzene	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Bromodichloromethane	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Bromoform	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Bromomethane	µg/l	N.D.@200	N.D.@2	N.D.@200	N.D.@200	N.D.@2	N.D.@10	N.D.@20	N.D.@2	N.D.@10	N.D.@20	N.D.@2
Carbon tetrachloride	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Chlorobenzene	µg/l	N.D.@200	N.D.@1	N.D.@200	N.D.@200	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1
Chloroethane	µg/l	N.D.@200	N.D.@1	N.D.@200	N.D.@200	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1
Chloroform	µg/l	N.D.@100	5.7	N.D.@100	N.D.@100	1.1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Chloromethane	µg/l	N.D.@200	N.D.@1	N.D.@200	N.D.@200	N.D.@1	N.D.@5	N.D.@20	N.D.@1	N.D.@5	N.D.@20	N.D.@1
cis-1,3-Dichloropropene*	µg/l	N.D.@100	N.D.@2	N.D.@100	N.D.@100	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2
Dibromochloromethane	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Ethylbenzene	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
Methylene Chloride	µg/l	N.D.@100	3.7	N.D.@100	N.D.@100	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2
Tetrachloroethene	µg/l	2000	1860	1540	50	70	55	140	165	122	N.D.@10	N.D.@1
Toluene	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@5	N.D.@10	N.D.@1	N.D.@5	N.D.@10	N.D.@1
trans-1,2-Dichloroethene	µg/l	N.D.@100	10	N.D.@100	N.D.@100	1.1	N.D.@5	N.D.@10	1.3	N.D.@5	N.D.@10	N.D.@1
trans-1,3-Dichloropropene*	µg/l	N.D.@100	N.D.@1	N.D.@100	N.D.@100	N.D.@1	N.D.@10	N.D.@10	N.D.@1	N.D.@10	N.D.@10	N.D.@1
Trichloroethene	µg/l	14000	16000	11200	600	805	562	610	741	526	N.D.@10	N.D.@1
Trichlorofluoromethane	µg/l	N.A.	N.A.	N.D.@100	N.A.	N.A.	N.D.@5	N.A.	N.A.	N.D.@5	N.A.	N.A.
Vinyl chloride	µg/l	N.D.@100	25	N.D.@200	N.D.@100	N.D.@2	N.D.@10	N.D.@10	N.D.@2	N.D.@10	N.D.@10	N.D.@2
cis-1,2-Dichloroethene	µg/l	1900	2190	1880	140	195	132	200	221	180	N.D.@10	N.D.@1
TOTAL VOCs	µg/l	32810	33884.1	24550	790	1175.6	804	1107	1288.3	938	0	0

Notes:
N.A. - Not analyzed
N.D.@1 - Not detected at indicated concentration
* - indicates that the December 2000 results are for total 1,3-Dichloropropene

TABLE A-4
WATER QUALITY ANALYSES
PACKED TOWER AERATOR SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley - Davidson Motor Company

Sample ID		PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.
Lab ID		137074-2	138983-1	141310-1	143132-2	144959-1	147389-1
Sample Date		07/06/99	08/03/99	09/07/99	10/04/99	11/02/99	12/13/99
Parameter	Units	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROBENZENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROFORM	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DICHLOROBROMOMETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TETRACHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TRICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
VINYL CHLORIDE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS 1,2-DICHLOROETHENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TOTAL VOCs	µg/l	0	0	0	0	0	0

Sample ID		PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.
Lab ID		148432-2	150247-1	151973-1	154228-2	155659-1	157570-1
Sample Date		01/03/00	02/04/00	03/03/00	04/07/00	05/03/00	06/02/00
Parameter	Units	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROBENZENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROFORM	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DICHLOROBROMOMETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TETRACHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TRICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
VINYL CHLORIDE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS 1,2-DICHLOROETHENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TOTAL VOCs	µg/l	0	0	0	0	0	0

Sample ID		PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.	PTA Effl.
Lab ID		159795-2	161694-1	163986-1	165819-2	167884-1	169577-8
Sample Date		07/07/00	08/04/00	09/08/00	10/05/00	11/03/00	12/01/00
Parameter	Units	Result	Result	Result	Result	Result	Result
1,1,1-TRICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROBENZENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROFORM	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DICHLOROBROMOMETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TETRACHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TRICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
VINYL CHLORIDE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS 1,2-DICHLOROETHENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TOTAL VOCs	µg/l	0	0	0	0	0	0

TABLE A-4
WATER QUALITY ANALYSES
PACKED TOWER AERATOR SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND CONCENTRATIONS
Harley - Davidson Motor Company

Sample ID Lab ID Sample Date Parameter	Units	PTA Infl. 137074-1 07/06/99 Result	PTA Infl. 142132-1 10/04/99 Result	PTA Infl. 148432-1 01/04/00 Result	PTA Infl. 154228-1 04/07/00 Result	PTA Infl. 159795-1 07/07/00 Result	PTA Infl. 165819-1 10/05/00 Result
1,1,1-TRICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1,1-DICHLOROETHENE	µg/l	N.D.@50	46.4	N.D.@50	33	29	62
1,2-DICHLOROETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROBENZENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
CHLOROFORM	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
DICHLOROBROMOMETHANE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TETRACHLOROETHENE	µg/l	466	462	469	346	429	528
TRICHLOROETHENE	µg/l	1010	908	952	768	934	1010
VINYL CHLORIDE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TRANS 1,2-DICHLOROETHENE	µg/l	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
TOTAL VOCs	µg/l	1476	1416.4	1421	1147	1392	1600

N.D.@1 - Not detected at indicated concentration.
N.A. - Not Analyzed.

TABLE A-5
GROUNDWATER QUALITY ANALYSES
OFF-SITE SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS
Harley - Davidson Motor Company

SAMPLE ID		RW-4 (FOLK)						RW-5*		S-6 (TATE)					
SAMPLE DATE		09/07/99	12/22/99	03/03/00	06/02/00	09/08/00	12/01/00	09/30/99	03/31/2000	09/07/99	12/22/99	03/03/00	06/02/00	09/08/00	12/01/00
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-Trichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1,2,2-Tetrachloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1,2-Trichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1-Dichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1-Dichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-Dichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-Dichloropropane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
2-Chloroethyl vinyl ether	µg/l	NA	NA	NA	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	NA	NA	NA	NA	N.D.@1	N.D.@1
Benzene	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromodichloromethane	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromoform	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromomethane	µg/l	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@2	N.D.@2	N.D.	N.D.	N.D.@5	N.D.@5	N.D.@5	N.D.@5	N.D.@2	N.D.@2
Carbon tetrachloride	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chlorobenzene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chloroform	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	6	4.1	5	6.6	6.4	5.9
Chloromethane	µg/l	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	N.D.@5	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@1
cis-1,3-Dichloropropene**	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2
cis-1,2-Dichloroethene	µg/l	NA	NA	NA	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	NA	NA	NA	NA	N.D.@1	N.D.@1
Dibromochloromethane	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Ethylbenzene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Methylene Chloride	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@2	N.D.@2	N.D.	N.D.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@2
Tetrachloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Toluene	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.A.	N.A.	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
trans-1,2-Dichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
trans-1,3-Dichloropropene**	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	4	4	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2
Trichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.A.	N.D.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Trichlorofluoromethane	µg/l	NA	NA	NA	NA	N.D.@1	N.D.@1	N.D.	N.D.	NA	NA	NA	NA	N.D.@1	N.D.@1
Vinyl chloride	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.A.	N.A.	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2
TOTAL VOCs	µg/l	0	0	0	0	0	0	4	4	6	4.1	5	6.6	6.4	5.9
Cyanide (Free)	mg/l	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.	N.D.	N.D.@0.005	N.D.@0.005	N.D.@0.00	N.D.@0.005	N.D.@0.005	N.D.@0.005
Cyanide (total)	mg/l	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.	N.D.	N.D.@0.005	N.D.@0.005	N.D.@0.00	N.D.@0.005	N.D.@0.005	N.D.@0.005

Notes:
* - indicates that these data were collected by Langan Environmental Services as part of the remedial investigation at the site.
** - indicates that a total 1,3-Dichloropropene value was reported for September and December, 2000.
1) N.D. - Not Detected.
2) NA - Not Analyzed.

TABLE A-5
GROUNDWATER QUALITY ANALYSES
OFF-SITE SAMPLES (July 1, 1999 - December 31, 2000)
VOLATILE ORGANIC COMPOUND AND CYANIDE CONCENTRATIONS
Harley - Davidson Motor Company

SAMPLE ID		S-7 (HERMANN)						TRIP BLANK				
SAMPLE DATE		09/07/99	12/22/99	03/03/00	06/02/00	09/08/00	12/01/00	09/07/99	12/22/99	03/03/00	06/02/00	12/01/00
ANALYTE	Units	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
1,1,1-Trichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1,2,2-Tetrachloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1,2-Trichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1-Dichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,1-Dichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-Dichloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
1,2-Dichloropropane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
2-Chloroethyl vinyl ether	µg/l	NA	NA	NA	N.D.@1	N.D.@1	N.D.@1	NA	NA	NA	N.D.@1	N.D.@1
Benzene	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromodichloromethane	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromoform	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Bromomethane	µg/l	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@2	N.D.@2	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@2
Carbon tetrachloride	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chlorobenzene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chloroethane	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chloroform	µg/l	2.5	2.6	2.2	2.9	2.8	3.1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Chloromethane	µg/l	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@1	N.D.@1	N.D.@5	N.D.@5	N.D.@5	N.D.@1	N.D.@1
cis-1,3-Dichloropropene**	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2
cis-1,2-Dichloroethene	µg/l	NA	NA	NA	N.D.@1	N.D.@1	N.D.@1	NA	NA	NA	N.D.@1	N.D.@1
Dibromochloromethane	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
Ethylbenzene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Methylene Chloride	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@2	N.D.@2
Tetrachloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Toluene	µg/l	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@2	N.D.@1	N.D.@1
trans-1,2-Dichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
trans-1,3-Dichloropropene**	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2
Trichloroethene	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@1
Trichlorofluoromethane	µg/l	NA	NA	NA	NA	N.D.@1	N.D.@1	NA	NA	NA	NA	N.D.@1
Vinyl chloride	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2	N.D.@2	N.D.@1	N.D.@1	N.D.@1	N.D.@1	N.D.@2
TOTAL VOCs	µg/l	2.5	2.6	2.2	2.9	2.8	3.1	0	0	0	0	0
Cyanide (Free)	mg/l	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	NA	NA	NA	NA	NA
Cyanide (total)	mg/l	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	N.D.@0.005	NA	NA	NA	NA	NA

Notes:
* - indicates that these data were collected by Langan Environmental Services as part of the remedial investigation at the site.
** - indicates that a total 1,3-Dichloropropene value was reported for September and December, 2000.
1) N.D. - Not Detected.
2) NA - Not Analyzed.