ANNUAL MONITORING REPORT
CALENDAR YEAR 2005
GRENADA MANUFACTURING, LLC
GRENADA, MISSISSIPPI

Prepared for
ArvinMeritor
Troy, Michigan

May 2006

27-127939.004

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May 23, 2006

27-127939.004

BROWN AND CALDWELL

Mr. Don Webster
USEPA Region IV
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

RE: Annual Monitoring Report for Calendar Year 2005 (CY2005)
Grenada Manufacturing, LLC
Grenada, Mississippi

Dear Mr. Webster:

Attached for your review is the CY2005 Annual Monitoring Report for the Grenada Manufacturing Site. The site monitoring was performed in accordance with the Performance Monitoring Plan (PMP), Appendix E of the *Design Basis Report for the Groundwater Interim Measure*, prepared by Brown and Caldwell (BC) in April 2003 and revised in September 2004.

This report addresses the groundwater sampling events which occurred in March and November of 2005. It also addresses the first two quarterly monitoring events for surface water, the first of which occurred concurrently with the March groundwater sampling events. The second quarterly event occurred in May 2005. The last two surface water events did not occur due to legal issues that arose between ArvinMeritor and Textron.

Please let us know if you have any questions concerning the report or its findings.

Sincerely,

BROWN AND CALDWELL

Dale R. Showers, P.E.
Engineering Manager
Environmental Services

Will Raines, P.E.
Project Manager
Environmental Services

Enclosure

cc: John Bozick - ArvinMeritor
Don Williams – Grenada Manufacturing, LLC
Toby Cook – Mississippi Department of Environmental Quality
Jeffrey Karp, Esq. – Bingham McCutchen

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1.0 PURPOSE AND OBJECTIVES

This report provides a summary of the findings of the site monitoring events performed in calendar year 2005 (CY2005) at the Grenada Manufacturing facility in Grenada, Mississippi. A site location map is provided as Figure 1-1. This site monitoring was performed in accordance with the Performance Monitoring Plan (PMP), Appendix E of the *Design Basis Report for the Groundwater Interim Measure*, prepared by Brown and Caldwell (BC) in April 2003 and revised in September 2004. The PMP provides for a means to evaluate the effectiveness of various corrective measures at the site.

A baseline sampling event was performed in November 2003 and that data is presented in the *Baseline Groundwater, Surface Water, and Sediment Sampling Report* (BC, June 2004). That report also summarizes site background, geology, and hydrogeology information, which is not repeated herein. The construction of the permeable reactive barrier (PRB), which is the selected migration control groundwater measure, was completed in February 2005. The specific objective of the CY2005 performance monitoring is to begin collecting data describing conditions following the construction of the PRB. The key purpose of this report is to provide updated monitoring data that will be used as points of comparison to monitor the effectiveness of the PRB at preventing off-site migration of impacted groundwater to surface water and sediment. For CY2005 the PMP calls for quarterly surface water monitoring events, a focused semi-annual groundwater monitoring event, and a site-wide semi-annual monitoring event. This report addresses two quarterly monitoring events for surface water and two focused semi-annual groundwater monitoring events only, as those were the only samples collected in CY2005 due to legal issues that arose between ArvinMeritor and Textron. The issues were resolved late in 2005, so the proposed scope of work for CY2006 will resume the monitoring program outlined in the PMP.

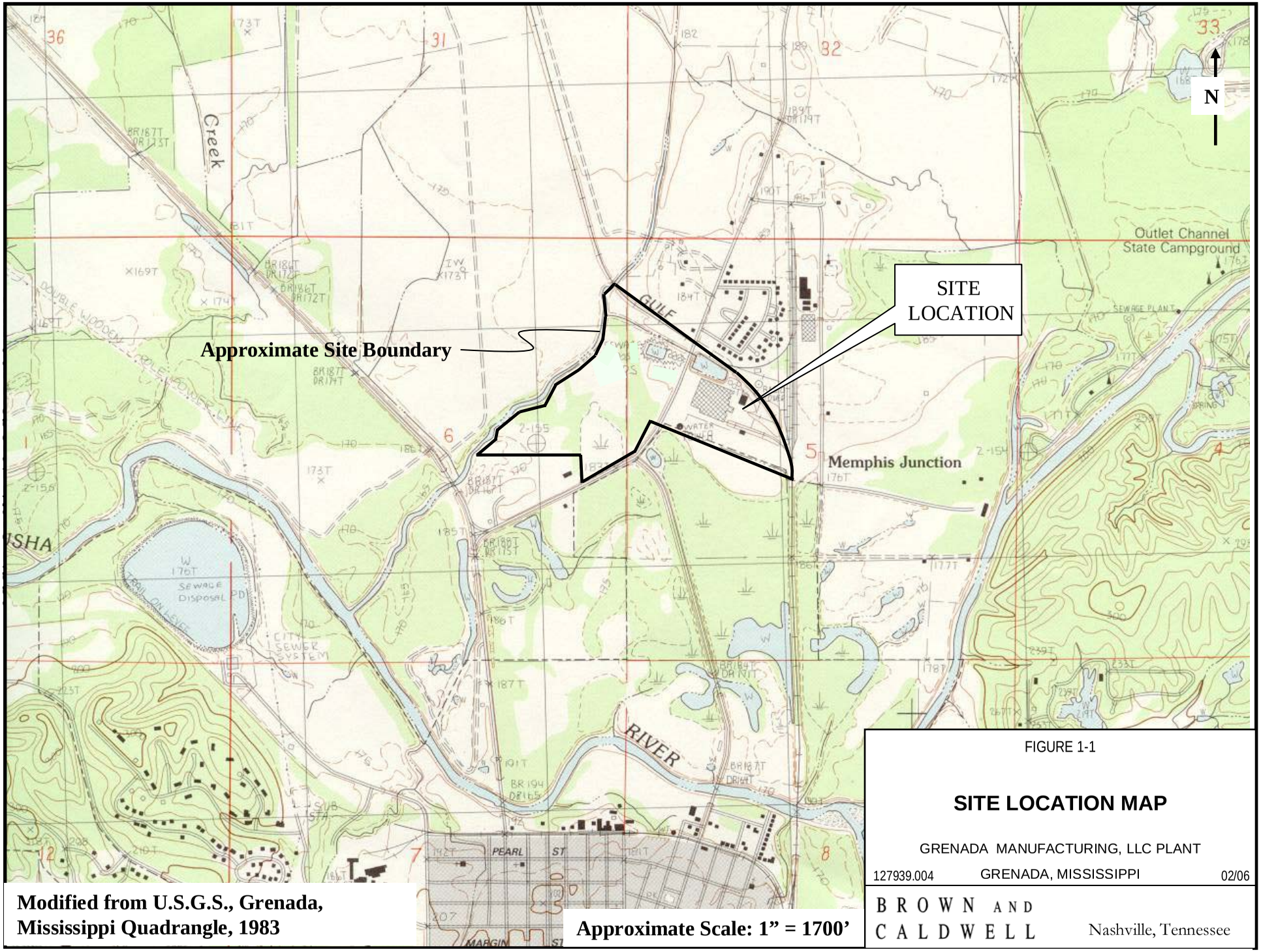

FIGURE 1-1

SITE LOCATION MAP

GRENADA MANUFACTURING, LLC PLANT

127939.004 GRENADA, MISSISSIPPI 02/06

BROWN AND CALDWELL Nashville, Tennessee

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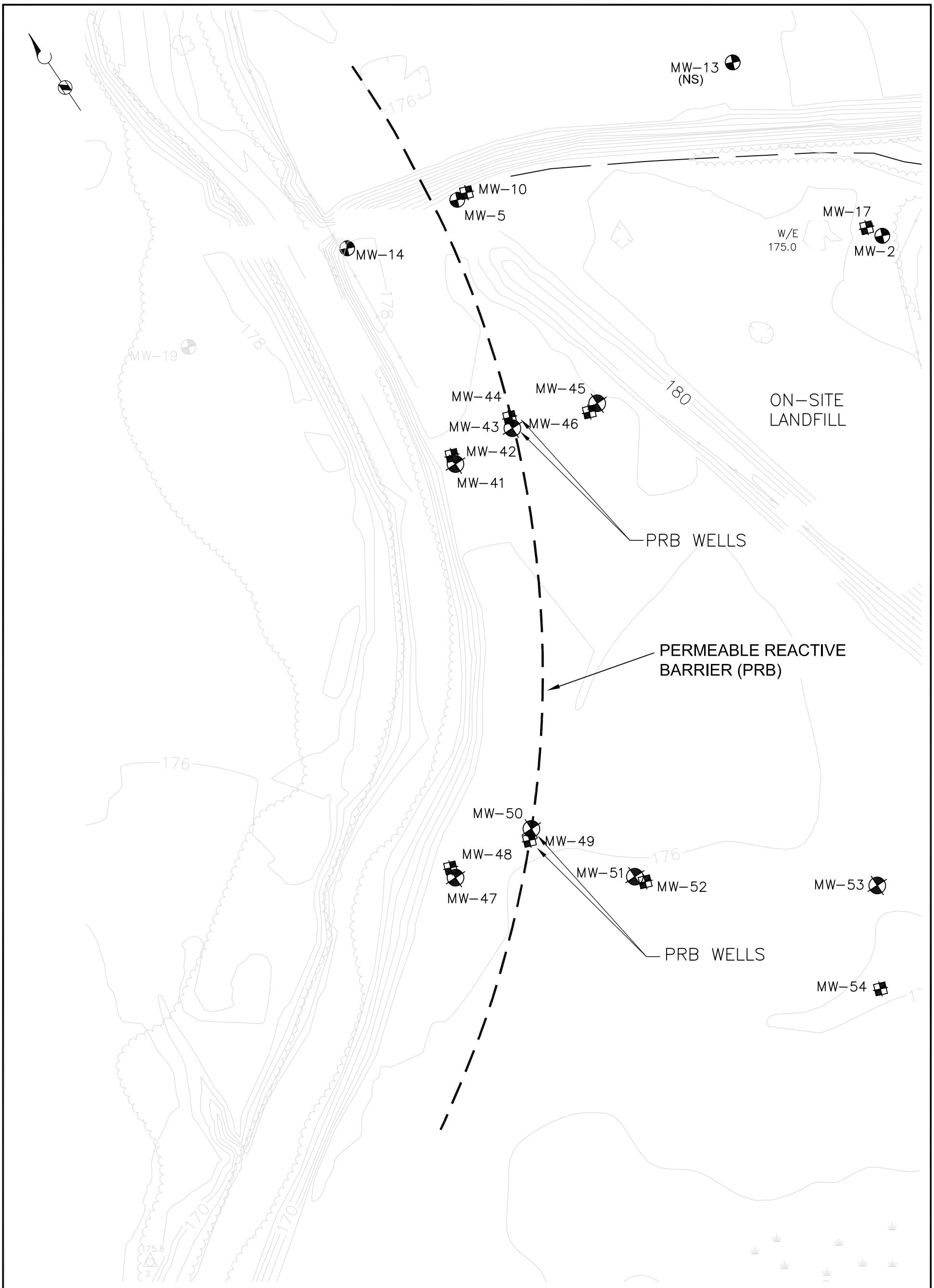
2.0 MONITORING STRATEGY AND METHODS

This section describes the methods used to monitor groundwater and surface water at the site. The groundwater and surface water quality were measured to monitor the effectiveness of the various corrective measures. The groundwater was also analyzed for bioparameters to assess the extent to which natural attenuation is occurring.

In general, the primary approach for monitoring the effectiveness of the PRB is through the use of groundwater monitoring wells installed upgradient, inside, and downgradient of the wall. Due to the hydrogeology in this area of the site, each of these well locations contains a shallow and deep monitoring well so that the upper and lower portions of the aquifer can be monitored separately using nested pairs of monitoring wells. These pairs of monitoring wells have been installed nearly perpendicular to the PRB alignment at two locations. The locations of the wells in the vicinity of the PRB are shown on Figure 2-1. Table 2-1 lists the locations monitored. Table 2-2 shows the parameters analyzed for the given locations.

The methods and procedures used to conduct the groundwater sampling are presented in Section 9.0 through Section 20.0 of the approved Quality Assurance Project Plan (QAPP) (Brown and Caldwell, November 2000), and include field sampling, laboratory analysis, sample chain of custody, quality control, and personnel certification. Groundwater samples are analyzed primarily for the select volatile organic compounds (VOCs) and inorganics listed in Table 2-2. Because semi-volatile organic compounds (SVOCs) are less of a concern in this area of the site, these parameters typically are not included in the semi-annual monitoring program. Instead, SVOCs generally will be included in the biennial site-wide monitoring program.

In addition to groundwater monitoring, surface water sampling and analysis is performed quarterly, at the request of the United States Environmental Protection Agency (USEPA), to monitor site constituents in Riverdale Creek. Surface water sampling was performed in accordance with the procedures outlined in the Baseline Sampling Report because the approved QAPP (BC, November 2000) is in the process of being updated. These procedures were previously approved by the USEPA as part of revisions to the PMP. The



LEGEND

UPPER MOST AQUIFER SHALLOW MONITORING WELL

UPPER MOST AQUIFER DEEP MONITORING WELL

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 2-1

PRB PERFORMANCE MONITORING WELL LOCATIONS

ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI

127939.004 4/06

BROWN AND CALDWELL Nashville, Tennessee

May 30, 2006 - 1:05pm cad

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Table 2-1

LIST OF MONITORING WELLS AND SURFACE WATER LOCATIONS

Grenada Manufacturing Site
Grenada, Mississippi

SAMPLE LOCATION	PARAMETERS	SHALLOW (S) / DEEP (D)
Monitoring Well Location		
MW - 5	Inorganics, Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Field Bioparameters	S
MW - 10	Inorganics, VOCs, SVOCs, Field Bioparameters	D
MW - 14	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 41	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 42	Inorganics, VOCs, SVOCs, Field Bioparameters	D
MW - 43	Inorganics, VOCs, SVOCs, Field Bioparameters, Dissolved Total Organic Carbon	S
MW - 44	Inorganics, VOCs, SVOCs, Field Bioparameters, Dissolved Total Organic Carbon	D
MW - 45	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 46	Inorganics, VOCs, SVOCs, Field Bioparameters	D
MW - 47	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 48	Inorganics, VOCs, SVOCs, Field Bioparameters	D
MW - 49	Inorganics, VOCs, SVOCs, Field Bioparameters, Dissolved Total Organic Carbon	S
MW - 50	Inorganics, VOCs, SVOCs, Field Bioparameters, Dissolved Total Organic Carbon	D
MW - 51	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 52	Inorganics, VOCs, SVOCs, Field Bioparameters	D
MW - 53	Inorganics, VOCs, SVOCs, Field Bioparameters	S
MW - 54	Inorganics, VOCs, SVOCs, Field Bioparameters	D

Table 2-1

LIST OF MONITORING WELLS AND SURFACE WATER LOCATIONS

Grenada Manufacturing Site
Grenada, Mississippi

SAMPLE LOCATION	PARAMETERS	SHALLOW (S) / DEEP (D)
Surface Water Location		
SW-9	Inorganics, VOCs, Field Bioparameters	--
SW-12	Inorganics, VOCs, Field Bioparameters	--
SW-17	Inorganics, VOCs, Field Bioparameters	--
SW-19	Inorganics, VOCs, Field Bioparameters	--
SW-22	Inorganics, VOCs, Field Bioparameters	--

[a]SVOCs only monitored during November 2005 sampling event.

[b]Refer to Table 2-2 for a list of specific constituents.

Table 2-2

LIST OF CONSTITUENTS FOR GROUNDWATER AND SURFACE WATER MONITORING

Grenada Manufacturing
Grenada, Mississippi

Constituents of Concern

VOCs
Trichloroethene (TCE)
cis-1,2-Dichloroethene (Cis-1,2-DCE)
Vinyl Chloride (VC)
Benzene
1,2-Dichloroethane
1,1,-Dichloroethene
1,1,2-Trichloroethane
Tetrachloroethene (PCE)
Toluene

FIELD BIOPARAMETERS
Temperature
Dissolved Oxygen[a]
Manganese[a]
Iron[a]
Carbon Dioxide[a]
Hydrogen Sulfide[a]
pH
Oxidation-Reduction Potential (ORP)[a]
Specific Conductivity

METALS
Arsenic
Chromium (hexavalent and total)
Lead

SVOCs[a, b]
Bis(2-ethyl-hexyl)Phthalate

[a]Only groundwater samples were analyzed for these parameters.
[b]Only monitored during November 2005 groundwater sampling event.

constituents monitored as part of the surface water monitoring program are very similar to the groundwater monitoring parameters for the PRB. The surface water monitoring is explained further in Section 2.3.

2.1 GROUNDWATER SAMPLING AND MONITORING

Groundwater was collected from the monitoring wells listed on Table 2-1, as outlined in the USEPA-approved PMP. The groundwater samples were analyzed in the field for select parameters and by Empirical Laboratories, LLC (formerly ELAB, Inc.) in Nashville, Tennessee for the parameters listed in Table 2-2. The samples were appropriately preserved, which included storage at approximately 4°C, immediately upon collection and thereafter during shipment to the laboratory, and until analyses were performed. Field measurements and observations were recorded in the field log book and are summarized on the Field Sample Data Forms (included in Appendix A). The samples were then shipped to the laboratory in accordance with standard chain-of-custody procedures. Chain-of-custody records and laboratory analytical reports are included in Appendix B.

As indicated on Table 2-1, the monitoring wells were sampled for field analysis of indicator parameters for biodegradation of VOCs. The field bioparameters (see Table 2-2) include carbon dioxide, iron (II), manganese (II), hydrogen sulfide, dissolved oxygen (DO), and oxidation-reduction potential (ORP or Eh). Bioparameters are measures or indicators of conditions favorable to natural attenuation and/or the extent to which natural attenuation (reductive dechlorination) is occurring.

2.2 INTRINSIC REMEDIATION DATA REVIEW

Intrinsic remediation relies on the natural restorative capacity of aquifers to control migration and reduce the mass of constituents of concern through adsorption, diffusion, dispersion, volatilization, and degradation. These processes must be scientifically evaluated and monitored to determine if they may aid in achieving site-specific goals. An understanding of the hydrogeologic conditions, groundwater quality, the properties of the constituents of concern, and bioparameters may provide qualitative evidence of intrinsic

remediation (i.e., natural attenuation) and indicate the extent to which biodegradation contributes to natural attenuation. A more detailed discussion of intrinsic remediation is provided in the Baseline Sampling Report.

The bioparameters that can be used to evaluate a site for reductive dechlorination are presented in Table 2-2. Bioparameter data obtained from locations within and outside of the plume were compared in order to identify the probable mechanism(s) for reductive dechlorination. By evaluating these parameters and comparing the relative values obtained at different locations within the aquifer, insight can be gained with respect to whether conditions are continuing to support reductive dechlorination.

2.3 SURFACE WATER SAMPLING

The groundwater in the uppermost aquifer at the site flows toward and discharges to Riverdale Creek. Surface water samples were collected at five (5) sample locations (SW-9, SW-12, SW-17, SW-19, and SW-22), as indicated on Figure 2-2. In order to compare previously gathered data, these sample locations coincide with previous surface water sampling events. In addition, the sample designations match those assigned in previous investigations. These locations include one sample collected approximately 300 feet upstream of the Outfall Ditch on Riverdale Creek, one at the confluence of the Outfall Ditch and Riverdale Creek, one in Riverdale Creek parallel to the alignment of the PRB approximately 400 feet downstream of the Outfall Ditch, and two further downstream of the PRB. The two samples downstream of the PRB consisted of one sample approximately 2,000 feet downstream of the Outfall Ditch (roughly 400 feet downstream of the PRB) and the other approximately 3,000 feet downstream of the Outfall Ditch near the Highway 51 bridge.

Surface water samples were collected near the east bank of Riverdale Creek at locations exhibiting the greatest degree of homogeneity. Surface water samples were collected from downstream to upstream so that sediment is not transported to unsampled locations. At each of the sample locations, a water sample was collected near the surface of the creek.

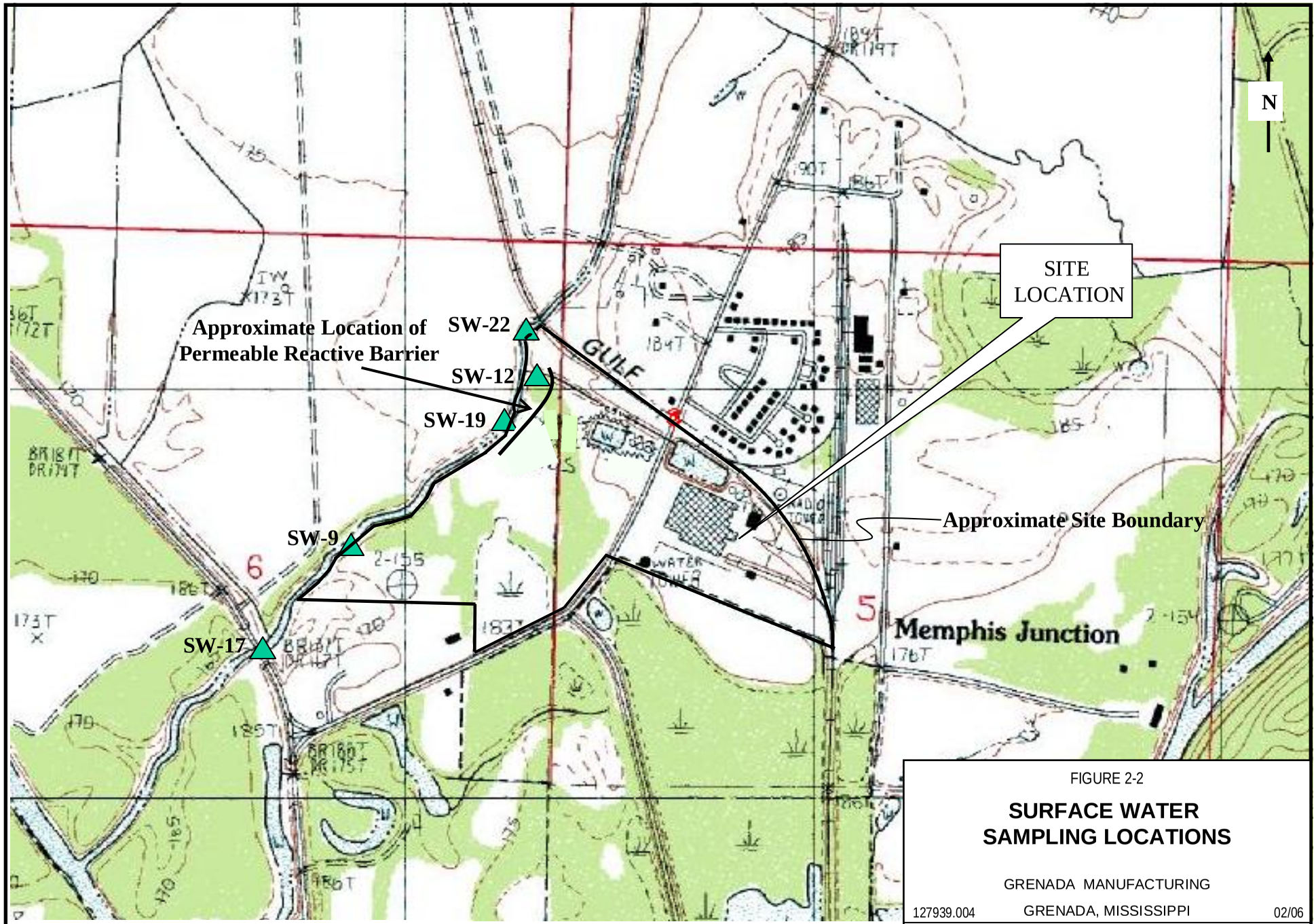


FIGURE 2-2

SURFACE WATER SAMPLING LOCATIONS

GRENADA MANUFACTURING

127939.004 GRENADA, MISSISSIPPI 02/06

Modified from U.S.G.S., Grenada, Mississippi Quadrangle, 1983

Approximate Scale: 1" = 1000'

BROWN AND CALDWELL Nashville, Tennessee

At each sample location, water temperature, pH, and specific conductance were measured in the field using a thermometer, portable field pH meter, and specific conductance meter. Results were recorded in the field log book. Meter probes were gently wiped with a paper towel and then rinsed with deionized water before and after each use. The pH and specific conductivity meters were calibrated and calibration records were maintained in the field log book. Sampling equipment was decontaminated prior to sampling in accordance with USEPA established protocols.

The surface water samples were analyzed by Empirical Laboratories, LLC (formerly ELAB, Inc.) in Nashville, Tennessee for VOCs and inorganic parameters listed in Table 2-2. The samples were appropriately preserved, which included storage at approximately 4°C, immediately upon collection and thereafter during shipment to the laboratory, and until analyses were performed. Field measurements and observations were recorded in the field log book and are summarized on the Field Sample Data Forms (included in Appendix A). The samples were then shipped to the laboratory in accordance with standard chain-of-custody procedures. Chain-of-custody records and laboratory analytical reports are included in Appendix B.

2.4 QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance/quality control (QA/QC) of sampling and analysis was maintained and monitored by collection and analysis of field QA/QC samples, and analysis of method-required laboratory QA/QC samples. One duplicate, one matrix spike/matrix spike duplicate (MS/MSD), and one equipment blank were collected during each groundwater sampling event. One duplicate was collected during each surface water event. For each groundwater and surface water sampling event, one trip blank was sent with each shipment of samples and one temperature control blank was placed in each cooler. A chain-of-custody form and Field Sample Data Form were completed after sample collection and master field log documentation. The chain-of-custody forms accompanied the samples to the laboratory. The field personnel collecting the samples were responsible for the custody of the samples until transportation to the laboratory. Sample transfer required the individuals relinquishing and receiving the samples to sign, date, and note the time on the

chain-of-custody forms. Field Sample Data Forms are included in Appendix A. Copies of the chain-of-custody forms are included in Appendix B. Results of the QA/QC analyses are included with the laboratory reports located in Appendix B. These samples generated data used to evaluate the quality of both field and laboratory procedures.

2.5 DECONTAMINATION AND INVESTIGATION-DERIVED WASTE

Field equipment, such as non-dedicated sampling or downhole measurement equipment was decontaminated between each sampling location following the procedures outlined in the QAPP. Purge water developed during the sampling event was placed into Department of Transportation (DOT)-approved 55-gallon drums and stored on site. Previous groundwater analyses were used to characterize the purge water for transportation and disposal by a licensed waste transporter retained by ArvinMeritor. BC provided ArvinMeritor with the number of drums, estimated volume of purge water, and previous analytical results. Additionally, BC clearly labeled each drum as to contents and date, as required for proper storage. The waste transporter developed the waste disposal manifests and delivered the manifests to ArvinMeritor for signature. The waste transporter then labeled each drum for transport and transported the drums under manifest for disposal on ArvinMeritor's behalf.

2.6 HEALTH AND SAFETY

Work performed per the approved PMP was conducted in accordance with a site-specific Health and Safety Plan (HASP), dated March 2005, which was developed consistent with OSHA requirements.

3.0 MONITORING RESULTS

During 2005, two quarterly surface water sampling events and two semi-annual groundwater sampling events were conducted. The following sections discuss the results of the sample analyses. Complete laboratory sample reports are available in Appendix B.

3.1 GROUNDWATER RESULTS

Tables 3-1 through 3-4 represent the groundwater data collected during the 2005 performance monitoring (highlighted in bold), as well as the historical data for all wells in the performance monitoring program. Table 3-1 presents the detected VOC concentrations. The VOC data are organized with the first three columns containing trichloroethene (TCE) and its degradation (or daughter) products: cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride. The remaining columns of VOC data are organized by frequency of detection. Table 3-2 presents the SVOC data and Table 3-3 presents the inorganics data. Those concentrations in Table 3-1, Table 3-2, or Table 3-3 that exceeded a site-specific risk-based action level or the USEPA maximum contaminant level (MCL) are highlighted. Bioparameter data are presented in Table 3-4. The bioparameter data are grouped into the following four categories: electron acceptors, indicators of degradation (i.e., ethene), nutrients, and geochemical parameters. Note that only field bioparameters were sampled in 2005.

During the semi-annual groundwater sampling events, the monitoring wells within the upper portion of the Upper Aquifer (MW-5, MW-14, MW-41, MW-43, MW-45, MW-47, MW- 50, MW-51, and MW-53) were sampled to establish trends within the upper portion of the plume. The monitoring wells within the lower portion of the Upper Aquifer (MW-10, MW-42, MW-44, MW-46, MW-48, MW-49, MW-52, and MW-54) were sampled to establish trends within the lower portion of the plume.

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023
MW-1	Aug. '91	Upper	7.70 JDX	NA	3.8 JE	0.012 J	0.0019 J	0.33 JE	0.14 J	0.007 J	0.0012 J
MW-1	Dec. '91		7.9 D	NA	4.9 D	UD	UD	UD	UD	UD	UD
MW-1	Jan. '93		4.9 D	NA	4.6 D	UD	UD	UD	UD	UD	UD
MW-1	Oct. '98		UD	62 D	1.2 D	UD	UD	UD	UD	UD	UD
MW-1	Oct. '00		6.1 D	20 D	1.5 D	UD	UD	0.099 JD	UD	UD	UD
MW-1	Nov. '03		3.1 D	31 D	1.2 D	UD	UD	UD	UD	UD	UD
MW-2	Aug. '91	Upper	480 JD	NA	18 JE	0.074 J	0.011 J	2.5 JE	2.8 JE	0.16 J	U
MW-2	Dec. '91		690 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-2	Jan. '93		560 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-2	Oct. '98		650 D	170 D	6.6 D	0.08 JD	UD	0.25 JD	2.2 D	UD	UD
MW-3	Aug. '91	Upper	0.29 JD	NA	U	0.0047 J	U	0.0067 J	0.0007 J	U	0.0005 J
MW-3	Dec. '91		3 D	NA	UD	0.01 D	UD	UD	UD	UD	UD
MW-3	Jan. '93		1.2 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-4	Aug. '91	Upper	3.5 JDX	NA	6.5 JD	U	0.0033 J	0.049	0.1	0.0032 J	0.0022 J
MW-4	Dec. '91		3.9 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-4	Jan. '93		2.9 D	NA	5.9 D	UD	UD	UD	UD	UD	UD
MW-4	Oct. '98		3.7 D	16 D	3.2 D	0.0055 J	U	0.036	0.082	U	0.0028 J
MW-4	Oct. '00		3.3 D	24 D	3.3 D	UD	UD	UD	0.07 JD	UD	UD
MW-4	Nov. '03		2.9 D	17 D	4.1 D	UD	UD	UD	0.063 JD	UD	UD
DW-4	Oct. '98	Lower	20 D	5.7 D	1.2 D	0.054	0.044	0.037	U	U	0.0092 J
MW-5	Aug. '91	Upper	1.5 JD	NA	U	0.0018 J	U	U	0.029	0.008 J	U
MW-5	Dec. '91		1.2 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-5	Jan. '93		15 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-5	Oct. '98		100 D	37 D	0.2 JD	UD	UD	UD	UD	UD	UD
MW-5 Dupe	Oct. '98		99 D	36 D	0.2 JD	UD	UD	UD	UD	UD	UD
MW-5	Oct. '00		69 D	45 D	UD	UD	UD	UD	UD	UD	UD
MW-5	Nov. '03		0.6 D	0.42 D	UD	UD	UD	UD	UD	UD	UD
MW-5	May '04		1.5 D	1 D	UD	UD	UD	UD	UD	UD	UD
MW-5	**Mar. '05**		**30 D**	**8.2 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-5	**Nov. '05**		**0.82 D**	**0.25 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-6	Aug. '91	Upper	9 JD	NA	24 JD	0.027	0.012	0.12	1.1 JD	0.019	0.0017 J
MW-6	Dec. '91		2.7 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-6	Jan. '93		9.8 D	NA	62 D	UD	UD	UD	0.81 JD	UD	UD
MW-6	Oct. '98		2.9 D	20 D	18 D	U	U	0.032	0.16	U	0.0015 J
MW-6	Oct. '00		3.5 D	3.2 D	1.2 D	0.025 D	U	0.012 JD	0.0068 JD	U	U
MW-6	Nov. '03		0.87 D	12 D	28 D	UD	UD	UD	0.16 JD	UD	UD

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023
MW-7	Aug. '91	Upper	0.019 J	NA	U	U	U	U	U	U	U
MW-7 DUP	Aug. '91		0.014 J	NA	U	U	U	U	U	U	U
MW-7	Dec. '91		0.015	NA	U	U	U	U	U	U	U
MW-7	Jan. '93		0.0078 J	NA	U	U	U	U	U	U	U
MW-7	Oct. '00		0.05	0.0061	U	U	U	U	U	U	U
MW-7	Nov. '03		0.014	0.00078 J	U	U	U	U	U	U	U
MW-8	Dec. '91	Lower	0.42 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-8	Jan. '93		0.3 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-8	Oct. '00		0.12	0.0032 J	U	U	U	U	U	U	U
MW-8	Nov. '03		0.11	0.0038	U	U	U	U	U	U	U
MW-9	Dec. '91	Lower	U	NA	U	U	U	U	U	U	U
MW-9	Jan. '93		U	NA	U	U	U	U	U	U	U
MW-9 DUP	Jan. '93		U	NA	U	U	U	U	U	U	U
MW-9	Nov. '03		U	U	U	U	U	U	U	U	U
MW-10	Aug. '91	Lower	0.0051 J	NA	U	U	U	U	U	U	U
MW-10	Jan. '93		0.0023 J	NA	U	U	U	U	U	U	U
MW-10	Oct. '98		0.0065 JD	UD	UD	UD	UD	UD	UD	UD	UD
MW-10	Oct. '00		0.0043 J	U	U	U	U	U	U	U	U
MW-10	Nov. '03		0.0033	U	U	U	U	U	U	U	U
MW-10	**Mar. '05**		**0.0049**	**0.0014**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-10	**Nov. '05**		**0.0039**	**0.0013**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-11	Dec. '91	Upper	0.072	NA	U	U	U	U	U	U	U
MW-11	Jan. '93		0.025	NA	U	U	U	U	U	U	U
MW-11	Oct. '00		1.4 D	0.038 D	UD	UD	UD	UD	UD	UD	UD
MW-11	Nov. ' 03		0.013	0.00047 J	U	U	U	U	U	U	U
MW-12	Dec. '91	Upper	U	NA	U	U	U	U	U	U	U
MW-12	Jan. '93		0.0075 J	NA	U	U	U	U	U	U	U
MW-12	Oct. '98		0.022	0.19	U	U	U	U	U	U	U
MW-12	Oct. '00		0.062	0.11	U	U	U	U	U	U	U
MW-12	Nov. '03		0.004	0.031	U	U	U	U	U	U	U
MW-12 Dup	Nov. '03		0.0043	0.032	U	U	U	U	U	U	U
MW-13	Dec. '91	Upper	U	NA	U	U	U	U	U	U	U
MW-13	Jan. '93		U	NA	U	U	U	U	U	U	U
MW-13	Oct. '00		U	U	U	U	U	U	U	U	U
MW-13	Nov. '03		U	U	U	U	U	U	U	U	U

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023
MW-14	Dec. '91	Upper	0.38 D	NA	U	U	U	U	U	U	U
MW-14	Jan. '93		0.33 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-14	Oct. '98		1.2 D	0.5 D	UD	UD	UD	UD	UD	UD	UD
MW-14	Oct. '00		4.8 D	2.4 D	UD	UD	UD	UD	UD	UD	UD
MW-14	Nov. '03		0.45 D	0.19 D	UD	UD	UD	UD	UD	UD	UD
MW-14	**Mar. '05**		**0.016 JD**	**4.8 D**	**0.25 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-14	**Nov. '05**		**0.0018**	**0.15**	**0.10**	**U**	**U**	**U**	**U**	**U**	**U**
MW-15	Dec. '91	Upper	3.5 D	NA	5.6 D	UD	UD	UD	UD	UD	UD
MW-15	Jan. '93		3.3 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-15	Oct. '98		5.2 D	2.3 D	0.0078 J	0.012	U	0.01	U	U	U
MW-15	Oct. '00		3.4 D	1.8 D	UD	UD	UD	UD	UD	UD	UD
MW-15	Nov. '03		2.5 D	3.4 D	0.1 D	UD	UD	UD	UD	UD	UD
MW-16	Dec. '91	Upper	7.1 JD	NA	55 D	UD	UD	UD	UD	UD	UD
MW-16	Jan. '93		5.5 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-16	Oct. '98		2.8 D	3.7 D	0.36	0.0061 J	U	0.012	U	U	U
MW-16	Oct. '00		3.8 D	4 D	0.49 D	UD	UD	0.014 JD	UD	UD	UD
MW-16 DUP	Oct. '00		4.4 D	4.3 D	0.54 D	UD	UD	UD	UD	UD	UD
MW-16	Nov. '03		2.3 D	3 D	0.41 D	UD	UD	UD	UD	UD	UD
MW-17	Jan. '93	Lower	11 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-17	Feb. '93		12 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-17 DUP	Feb. '93		11 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-17	Oct. '98		13 D	2.8 D	0.31 JD	UD	UD	UD	UD	UD	UD
MW-17	Oct. '00		9 D	1.9 D	0.14 JD	UD	UD	UD	UD	UD	UD
MW-17	Nov. '03		8.3 D	2.3 D	0.23 D	UD	UD	UD	UD	UD	UD
MW-17 DUP	Nov. '03		8.7 D	2.3 D	0.21 D	UD	UD	UD	UD	UD	UD
MW-20	Jan. '93	Upper	0.018	NA	U	U	U	U	U	U	U
MW-20	Feb. '93		0.024	NA	U	U	U	U	U	U	U
MW-20	Nov. '03		0.066	0.079	0.00051 J	U	U	U	U	U	U
MW-23	Jan. '93	Upper	9 D	NA	U	0.0025 J	U	0.0096 J	U	U	U
MW-23	Feb. '93		6.4 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-23	Oct. '98		0.2 D	0.095 D	0.011 JD	UD	UD	UD	UD	UD	UD
MW-23	Oct. '00		11 D	5 D	0.31 D	0.005 JD	U	0.059 D	UD	UD	UD
MW-23	Nov. '03		1.6 D	1.8 D	0.2 D	UD	UD	0.025 D	UD	UD	UD

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023
MW-24	Jan. '93	Upper	11 D	NA	UD	UD	UD	UD	660 D	UD	0.63 JD
MW-24	Feb. '93		4.4 JD	NA	UD	UD	UD	UD	150 D	UD	UD
MW-25	Jan. '93	Upper	360 D	NA	UD	UD	UD	UD	UD	UD	UD
MW-25	Feb. '93		240 D	NA	12 D	UD	UD	UD	UD	UD	UD
MW-25	Oct. '00		130 D	36 D	2.2 JD	0.28	0.028	0.81 D	0.36	0.76	0.0032 J
MW-25	Nov. '03		260 D	64 D	7 D	0.33 JD	UD	0.69 JD	0.44 JD	UD	UD
MW-41	Nov. '03	Upper	7.6 D	10 D	3.2 D	UD	UD	UD	UD	UD	UD
MW-41	**Mar. '05**		**UD**	**1.6 D**	**0.36 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-41	**Nov. '05**		**UD**	**1.7 D**	**0.3 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-42	Nov. '03	Lower	6.7 D	12 D	8.2 D	UD	UD	UD	UD	UD	UD
MW-42	**Mar. '05**		**7.6 D**	**18 D**	**0.54 D**	**UD**	**UD**	**0.059 JD**	**UD**	**UD**	**UD**
MW-42	**Nov. '05**		**UD**	**7.1 D**	**2.8 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-43	**Mar. '05**	**Upper**	**U**	**0.019**	**0.0037**	**U**	**0.0019**	**U**	**U**	**U**	**0.0012**
MW-43 Diff	**Nov. '05**		**U**	**U**	**U**	**U**	**0.0025**	**U**	**U**	**U**	**0.0058**
MW-44	**Mar. '05**	**Lower**	**U**	**0.16**	**0.022**	**U**	**U**	**U**	**U**	**U**	**0.001**
MW-44 DUP	**Mar. '05**		**U**	**0.14**	**0.019**	**U**	**0.00054 J**	**U**	**U**	**U**	**0.00094 J**
MW-44	**Nov. '05**		**U**	**0.031**	**0.0031**	**U**	**U**	**U**	**U**	**U**	**0.0014**
MW-44 Diff	**Nov. '05**		**U**	**0.032**	**0.0029**	**U**	**U**	**U**	**U**	**U**	**0.0014**
MW-45	Nov. '03	Upper	15 D	12 D	0.84 D	0.037 JD	UD	0.063 JD	UD	UD	UD
MW-45	**Mar. '05**		**15 D**	**13 D**	**4.1 D**	**0.04 JD**	**UD**	**0.062 JD**	**UD**	**UD**	**UD**
MW-45	**Nov. '05**		**11 D**	**12 D**	**1.5 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-46	Nov. '03	Lower	11 D	7.9 D	0.58 D	UD	UD	UD	UD	UD	UD
MW-46	**Mar. '05**		**15 D**	**8.3 D**	**0.53 D**	**UD**	**UD**	**0.038 JD**	**UD**	**UD**	**UD**
MW-46	**Nov. '05**		**14 D**	**7.0 D**	**0.52 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-47	Nov. '03	Upper	0.00068 J	0.003	U	U	U	U	U	U	U
MW-47	**Mar. '05**		**0.0011**	**0.0039**	**U**	**U**	**U**	**U**	**0.00024 J**	**U**	**0.00034 J**
MW-47	**Nov. '05**		**U**	**0.0046**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-48	Nov. '03	Lower	0.39 D	0.47 D	UD	UD	UD	UD	UD	UD	UD
MW-48	**Mar. '05**		**0.0038 JD**	**0.59 D**	**0.0065 JD**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-48	**Nov. '05**		**U**	**0.093**	**0.19**	**U**	**U**	**U**	**U**	**U**	**U**
MW-49	**Mar. '05**	**Lower**	**0.51 D**	**0.72 D**	**0.05 D**	**UD**	**UD**	**0.003 JD**	**UD**	**UD**	**UD**
MW-49 Diff	**Nov. '05**		**UD**	**0.55 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023
MW-50	**Mar. '05**	**Upper**	**U**	**0.0071**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-50 Diff	**Nov. '05**		**U**	**0.0017**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-51	Nov. '03	Upper	0.026	0.043	U	U	U	U	U	U	U
MW-51	**Mar. '05**		**0.0074**	**0.0095**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-51	**Nov. '05**		**0.026**	**0.041**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-52	Nov. '03	Lower	0.3 D	0.39 D	UD	UD	UD	UD	UD	UD	UD
MW-52	**Mar. '05**		**0.75 D**	**0.6 D**	**0.058 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-52	**Nov. '05**		**0.54 D**	**0.45 D**	**0.049 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-52 DUP	**Nov. '05**		**0.52 D**	**0.43 D**	**0.047 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-53	Nov. '03	Upper	0.0033	0.0082	U	U	U	U	U	U	U
MW-53	**Mar. '05**		**0.0047**	**0.017**	**U**	**U**	**U**	**U**	**U**	**U**	**U**
MW-53	**Nov. '05**		**0.14 D**	**0.28 D**	**0.067 D**	**UD**	**UD**	**UD**	**UD**	**UD**	**UD**
MW-54	Nov. '03	Lower	0.02 D	0.12 D	0.0049 D	UD	UD	UD	UD	UD	UD
MW-54	**Mar. '05**		**0.017**	**0.089**	**0.0032**	**U**	**U**	**U**	**U**	**U**	**U**
MW-54	**Nov. '05**		**0.028**	**0.12**	**0.0054**	**U**	**U**	**U**	**U**	**U**	**U**
RT-1	Jan. '93	Upper	0.09	NA	U	U	U	U	U	U	U
RT-1 DUP	Jan. '93		0.095	NA	U	U	U	U	U	U	U
RT-1	Oct. '00		0.14	0.0026 J	U	U	U	U	U	U	U
RT-1	Nov. '03		0.19	0.06	0.0019 J	U	U	U	U	U	U
RT-2	Jan. '93	Upper	63 D	NA	UD	UD	UD	UD	UD	UD	UD
RT-2	Oct. '00		8.7 D	3.2 D	0.071	0.018	UD	0.015	0.0035 J	0.0018 J	UD
RT-2	Nov. '03		9.6 D	20 D	2.9 D	UD	UD	0.09 JD	UD	UD	UD
RT-3	Jan. '93	Upper	130 D	NA	UD	0.45 JD	UD	UD	0.11 JD	UD	UD
RT-3	Oct. '00		38 D	16 D	0.62 D	0.2 D	UD	0.15 D	0.38 D	0.014 JD	UD
RT-3	Nov. '03		11 D	22 D	4.7 D	UD	UD	UD	0.23 D	UD	UD
RT-5	Jan. '93	Upper	2.6 D	NA	UD	UD	UD	UD	UD	UD	UD
RT-5	Oct. '98		10 D	6.1 D	0.18 JD	UD	UD	UD	UD	UD	UD
RT-5	Oct. '00		0.44 D	0.92 D	0.012 JD	UD	UD	UD	UD	UD	UD
RT-5	Nov. '03		7.9 D	5.6 D	0.27 D	UD	UD	UD	UD	UD	UD

TABLE 3-1

RESULTS FOR DETECTED VOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	Tetrachloro-ethene (mg/L)	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	Toluene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
	USEPA MCL*		0.005	0.07	0.002	0.005	0.005	0.007	1	0.005	0.005
	Site Specific Risk $1x10^{-6}$*		0.0061	0.57	3.5E-05	0.29	0.00074	0.00011	5.7	0.0012	0.0023

* Shading and/or dots indicate that result exceeded USEPA MCLs and/or Site-Specific Risk-Based Goals.
U = Not Detected
D = Sample was diluted
J = Sample was estimated
B = The constituent was also detected in a blank
E = Exceeds the highest concentration level on the standard curve
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed
NS = Not Sampled
Diff. = samples taken using diffusion bag samplers.

TABLE 3-2

RESULTS FOR DETECTED SVOCS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Bis (2-ethyl hexyl) phthalate (mg/L)
USEPA MCL*			0.006
Site Specific Risk $1x10^{-6}$*			0.0048
MW-1	Aug. 1991	Upper	0.0011 J
MW-1	Oct. 2000	Upper	0.011
MW-1	Nov. 2003	Upper	0.001 J
MW-2	Aug. 1991	Upper	0.0052 J
MW-3	Aug. 1991	Upper	0.0016 J
MW-4	Aug. 1991	Upper	0.0010 J
MW-4	Oct. 2000	Upper	U
MW-4	Nov. 2003	Upper	U
MW-5	Aug. 1991	Upper	0.0011 J
MW-5	Oct. 2000	Upper	0.0022 J
MW-5	Nov. 2003	Upper	U
MW-5	**Nov. 2005**	**Upper**	**U**
MW-6	Aug. 1991	Upper	0.0071 J
MW-6	Oct. 2000	Upper	U
MW-6	Nov. 2003	Upper	U
MW-7	Aug. 1991	Upper	U
MW-7 DUP	Aug. 1991	Upper	0.0007 J
MW-7	Oct. 2000	Upper	0.0065
MW-7	Nov. 2003	Upper	U
MW-8	Oct. 2000	Lower	U
MW-8	Nov. 2003	Lower	U
MW-9	Nov. 2003	Lower	U
MW-10	Oct. 2000	Lower	U
MW-10	Nov. 2003	Lower	0.0011 J
MW-10	**Nov. 2005**	**Lower**	**U**
MW-11	Oct. 2000	Upper	0.005 J
MW-11	Nov. 2003	Upper	U
MW-12	Oct. 2000	Upper	0.0073
MW-12	Nov. 2003	Upper	U
MW-12 DUP	Nov. 2003	Upper	U

Well Name	Sample Date	Well Type	Bis (2-ethyl hexyl) phthalate (mg/L)
USEPA MCL*			0.006
Site Specific Risk $1x10^{-6}$*			0.0048
MW-13	Oct. 2000	Upper	U
MW-13	Nov. 2003	Upper	0.0012 J
MW-14	Oct. 2000	Upper	U
MW-14	Nov. 2003	Upper	U
MW-14	**Nov. 2005**	**Upper**	**U**
MW-15	Oct. 2000	Upper	U
MW-15	Nov. 2003	Upper	U
MW-16	Oct. 2000	Upper	U
MW-16 DUPE	Oct. 2000	Upper	U
MW-16	Nov. 2003	Upper	U
MW-17	Oct. 2000	Lower	U
MW-17	Nov. 2003	Lower	U
MW-17 DUP	Nov. 2003	Lower	U
MW-20	Nov. 2003	Upper	U
MW-23	Oct. 2000	Upper	U
MW-23	Nov. 2003	Upper	U
MW-25	Oct. 2000	Upper	U
MW-25	Nov. 2003	Upper	U
MW-41	Nov. 2003	Upper	U
MW-41	**Nov. 2005**	**Upper**	**U**
MW-42	Nov. 2003	Lower	0.0014 J
MW-42	**Nov. 2005**	**Lower**	**U**
MW-43	**Nov. 2005**	**Upper**	**U**
MW-44	**Nov. 2005**	**Lower**	**U**
MW-45	Nov. 2003	Upper	U
MW-45	**Nov. 2005**	**Upper**	**U**
MW-46	Nov. 2003	Lower	U
MW-46	**Nov. 2005**	**Lower**	**U**

Well Name	Sample Date	Well Type	Bis (2-ethyl hexyl) phthalate (mg/L)
USEPA MCL*			0.006
Site Specific Risk $1x10^{-6}$*			0.0048
MW-47	Nov. 2003	Upper	U
MW-47	**Nov. 2005**	**Upper**	**U**
MW-48	Nov. 2003	Lower	U
MW-48	**Nov. 2005**	**Lower**	**U**
MW-49	**Nov. 2005**	**Lower**	**U**
MW-50	**Nov. 2005**	**Upper**	**U**
MW-51	Nov. 2003	Upper	U
MW-51	**Nov. 2005**	**Upper**	**U**
MW-52	Nov. 2003	Lower	U
MW-52 DUP	Nov. 2003	Lower	U
MW-52	**Nov. 2005**	**Lower**	**U**
MW-52 DUP	**Nov. 2005**	**Lower**	**U**
MW-53	Nov. 2003	Upper	U
MW-53	**Nov. 2005**		**U**
MW-54	Nov. 2003	Lower	U
MW-54	**Nov. 2005**	**Lower**	**U**
RT-1	Oct. 2000	Upper	U
RT-1	Nov. 2003	Upper	U
RT-2	Oct. 2000	Upper	U
RT-2	Nov. 2003	Upper	U
RT-3	Oct. 2000	Upper	U
RT-3	Nov. 2003	Upper	U
RT-5	Oct. 2000	Upper	U
RT-5	Nov. 2003	Upper	U

Notes:
* Shading and/or dots indicate a result exceeded the USEPA MCL and/or Region 9 PRG
U = Not Detected
D = Sample was diluted
J = Sample was estimated
B = The constituent was also detected in a blank
E = Exceeds the highest concentration level on the standard curve
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed
NS = Not Sampled

TABLE 3-3

RESULTS FOR DETECTED INORGANICS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
USEPA MCL*			0.01	0.1	NA	0.015
Site Specific Risk $1x10^{-6}$*			0.000037	NA	0.140 (VI)	NA
MW-1	Aug. 1991	Upper	0.058	0.014	U	0.01
MW-1	Dec. 1991	Upper	0.043	0.012	U	0.0044
MW-1	Jan. 1993	Upper	0.083	0.0052 X	U	U
MW-1	Oct. 2000	Upper	0.0637	U	U	U
MW-1	Nov. 2003	Upper	0.099	U	U	U
MW-2	Aug. 1991	Upper	0.023	0.079	U	0.032
MW-2	Dec. 1991	Upper	0.0065	0.035	U	0.01
MW-2	Jan. 1993	Upper	0.0078	0.043	U	0.0079
MW-2	Oct. 2000	Upper	U	U	U	U
MW-3	Aug. 1991	Upper	0.02	0.119	U	0.057
MW-3	Dec. 1991	Upper	NA	0.052	U	0.019
MW-3	Jan. 1993	Upper	U	0.095	0.06	0.017
MW-4	Aug. 1991	Upper	N	0.028	U	0.0092
MW-4	Dec. 1991	Upper	0.042	0.26	U	0.078
MW-4	Jan. 1993	Upper	0.0074	0.024 X	U	0.0067
MW-4	Oct. 2000	Upper	0.005 B	U	U	U
MW-4	Nov. 2003	Upper	U	U	U	U
MW-5	Aug. 1991	Upper	0.016	0.057	U	0.028
MW-5	Dec. 1991	Upper	U	0.021	U	0.0064
MW-5	Jan. 1993	Upper	0.0061	0.032	U	0.01
MW-5	Oct. 2000	Upper	U	U	U	U
MW-5	Nov. 2003	Upper	U	U	U	U
MW-5	**Mar. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-5	**Nov. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-6	Aug. 1991	Upper	0.015	2.93	U	0.033
MW-6	Dec. 1991	Upper	0.117	0.662	U	0.239
MW-6	Jan. 1993	Upper	0.0092	2.44	U	0.0069
MW-6	Oct. 2000	Upper	U	2.55	U	U
MW-6	Nov. 2003	Upper	U	2.4	U	U
MW-7	Aug. 1991	Upper	0.024	0.078	U	0.104
MW-7 DUP	Aug. 1991	Upper	0.03	0.101	U	0.098
MW-7	Dec. 1991	Upper	0.011	0.058	U	0.03
MW-7	Jan. 1993	Upper	0.0058	0.021 X	U	0.0097
MW-7	Oct. 2000	Upper	U	U	U	U
MW-7	Nov. 2003	Upper	U	0.0097	U	U
MW-8	Dec. 1991	Lower	U	U	U	U
MW-8	Jan. 1993	Lower	U	U	U	U
MW-8	Oct. 2000	Lower	U	U	U	U
MW-8	Nov. 2003	Lower	U	U	U	U
MW-9	Dec. 1991	Lower	U	U	U	U
MW-9	Jan. 1993	Lower	U	0.005 X	U	U
MW-9 DUP	Jan. 1993	Lower	U	U	U	0.024
MW-9	Nov. 2003	Lower	U	U	U	U

TABLE 3-3

RESULTS FOR DETECTED INORGANICS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
USEPA MCL*			0.01	0.1	NA	0.015
Site Specific Risk $1x10^{-6}$*			0.000037	NA	0.140 (VI)	NA
MW-10	Dec. 1991	Lower	0.021	U	U	U
MW-10	Jan. 1993	Lower	0.022	U	U	U
MW-10	Oct. 2000	Lower	U	U	U	U
MW-10	Nov. 2003	Lower	U	U	U	U
MW-10	**Mar. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-10	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-11	Dec. 1991	Upper	0.167	0.251	0.03	0.113
MW-11	Jan. 1993	Upper	0.259	0.199	U	0.188
MW-11	Oct. 2000	Upper	U	U	U	U
MW-11	Nov. 2003	Upper	U	U	U	U
MW-12	Dec. 1991	Upper	0.01	0.047	U	0.023
MW-12	Jan. 1993	Upper	U	0.012 X	U	U
MW-12	Oct. 2000	Upper	U	U	U	U
MW-12	Nov. 2003	Upper	U	U	U	U
MW-12 DUP	Nov. 2003	Upper	U	U	U	U
MW-13	Dec. 1991	Upper	0.03	0.144	U	0.047
MW-13	Jan. 1993	Upper	0.034	0.117	U	0.039
MW-13	Oct. 2000	Upper	U	U	U	U
MW-13	Nov. 2003	Upper	U	U	U	U
MW-14	Dec. 1991	Upper	0.051	0.343	0.05	0.123
MW-14	Jan. 1993	Upper	0.083	0.373	U	0.173
MW-14	Oct. 2000	Upper	U	U	U	U
MW-14	Nov. 2003	Upper	U	U	U	U
MW-14	**Mar. 2005**	**Upper**	**0.008**	**U**	**U**	**U**
MW-14	**Nov. 2005**	**Upper**	**0.018**	**0.023**	**U**	**0.018**
MW-15	Dec. 1991	Upper	U	0.014	U	0.0039
MW-15	Jan. 1993	Upper	0.031	0.147	U	0.051
MW-15	Oct. 2000	Upper	0.0195	0.0975	U	0.0428
MW-15	Nov. 2003	Upper	U	0.0062	U	U
MW-16	Dec. 1991	Upper	0.0067	1.44	U	0.0042
MW-16	Jan. 1993	Upper	0.0091	0.09	0.06	0.015
MW-16	Oct. 2000	Upper	0.0051 B	0.0229	U	0.006
MW-16 DUP	Oct. 2000	Upper	U	0.0218	U	0.0036
MW-16	Nov. 2003	Upper	U	U	U	U
MW-17	Jan. 1993	Lower	U	0.022 X	U	0.0079
MW-17	Feb. 1993	Lower	U	0.010 X	U	U
MW-17 DUP	Feb. 1993	Lower	U	0.0043 X	U	U
MW-17	Oct. 2000	Lower	U	U	U	U
MW-17	Nov. 2003	Lower	U	U	U	U
MW-17 DUP	Nov. 2003	Lower	U	U	U	U
MW-20	Jan. 1993	Upper	0.12	0.445	U	0.17
MW-20	Feb. 1993	Upper	0.079	0.323	U	0.152
MW-20	Nov. 2003	Upper	U	U	U	U

TABLE 3-3

RESULTS FOR DETECTED INORGANICS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
USEPA MCL*			0.01	0.1	NA	0.015
Site Specific Risk $1x10^{-6}$*			0.000037	NA	0.140 (VI)	NA
MW-23S	Jan. 1993	Upper	0.165	1.23	0.21	0.164
MW-23	Feb. 1993	Upper	0.134	1.18	0.279	0.174
MW-23	Oct. 2000	Upper	U	0.0367	U	U
MW-23	Nov. 2003	Upper	U	U	U	U
MW-24	Jan. 1993	Upper	0.165	0.184	U	0.06
MW-24	Feb. 1993	Upper	0.111	0.069 X	U	0.034
MW-25S	Jan. 1993	Upper	0.144	0.476	U	0.166
MW-25	Feb. 1993	Upper	0.119	0.378	U	0.14
MW-25	Oct. 2000	Upper	U	U	U	U
MW-25	Nov. 2003	Upper	U	U	U	U
MW-41	Nov. 2003	Upper	U	3.5	3.6	U
MW-41	**Mar. 2005**	**Upper**	**0.0078**	**U**	**U**	**U**
MW-41	**Nov. 2005**	**Upper**	**0.007**	**U**	**U**	**U**
MW-42	Nov. 2003	Lower	U	2.6	U	U
MW-42	**Mar. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-42	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-43	**Mar. 2005**	**Upper**	**U**	**0.0086**	**U**	**U**
MW-43	**Nov. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-44	**Mar. 2005**	**Lower**	**U**	**0.017**	**U**	**0.0034**
MW-44 DUP	**Mar. 2005**	**Lower**	**U**	**0.015**	**U**	**U**
MW-44	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-45	Nov. 2003	Upper	U	U	1.6	U
MW-45	**Mar. 2005**	**Upper**	**U**	**2.5**	**2.6**	**U**
MW-45	**Nov. 2005**	**Upper**	**U**	**0.89**	**0.90**	**U**
MW-46	Nov. 2003	Lower	U	0.42	0.069	U
MW-46	**Mar. 2005**	**Lower**	**U**	**0.056**	**U**	**U**
MW-46	**Nov. 2005**	**Lower**	**U**	**0.013**	**U**	**U**
MW-47	Nov. 2003	Upper	U	U	U	U
MW-47	**Mar. 2005**	**Upper**	**0.027**	**U**	**U**	**U**
MW-47	**Nov. 2005**	**Upper**	**U**	**0.019**	**U**	**U**
MW-48	Nov. 2003	Lower	U	U	U	U
MW-48	**Mar. 2005**	**Lower**	**0.056**	**U**	**U**	**U**
MW-48	**Nov. 2005**	**Lower**	**0.068**	**U**	**U**	**U**
MW-49	**Mar. 2005**	**Lower**	**U**	**0.0056**	**U**	**U**
MW-49	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-50	**Mar. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-50	**Nov. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-51	Nov. 2003	Upper	U	U	U	U
MW-51	**Mar. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-51	**Nov. 2005**	**Upper**	**U**	**U**	**U**	**U**

TABLE 3-3

RESULTS FOR DETECTED INORGANICS IN GROUNDWATER

Grenada Manufacturing Site
Grenada, Mississippi

Well Name	Sample Date	Well Type	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
USEPA MCL*			0.01	0.1	NA	0.015
Site Specific Risk $1x10^{-6}$*			0.000037	NA	0.140 (VI)	NA
MW-52	Nov. 2003	Lower	U	U	U	U
MW-52	**Mar. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-52	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-52 DUP	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-53	Nov. 2003	Upper	U	U	U	U
MW-53	**Mar. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-53	**Nov. 2005**	**Upper**	**U**	**U**	**U**	**U**
MW-54	Nov. 2003	Lower	U	U	U	U
MW-54	**Mar. 2005**	**Lower**	**U**	**U**	**U**	**U**
MW-54	**Nov. 2005**	**Lower**	**U**	**U**	**U**	**U**
RT-1	Jan. 1993	Upper	NA	0.019	U	NA
RT-1 DUP	Jan. 1993	Upper	NA	0.045	U	NA
RT-1	Oct. 2000	Upper	U	U	U	U
RT-1	Nov. 2003	Upper	U	0.0063	U	U
RT-2	Jan. 1993	Upper	NA	20.1	18	NA
RT-2	Oct. 2000	Upper	U	7.22	7.8	U
RT-2	Nov. 2003	Upper	U	8.2	9	U
RT-3	Jan. 1993	Upper	NA	58.8	51	NA
RT-3	Oct. 2000	Upper	U	6.89	6.4	U
RT-3	Nov. 2003	Upper	U	23	28	U
RT-5	Jan. 1993	Upper	NA	0.181	U	NA
RT-5	Oct. 2000	Upper	U	0.0092 B	U	U
RT-5	Nov. 2003	Upper	U	0.024	U	U

Notes:
* Shading and/or dots indicate that result exceeded USEPA MCLs and/or Site-Specific Risk-Based Goals.
U = Not Detected
D = Sample was diluted
J = Sample was estimated
B = The constituent was also detected in a blank
E = Exceeds the highest concentration level on the standard curve
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed
NS = Not Sampled

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Electron Acceptors								Indicators of Degradation							
Well	Date	Dissolved Oxygen mg/L	Nitrate/ Nitrite (as N) mg/L	Total Manganese mg/L	Field Manganese mg/L	Total Iron mg/L	Field Iron (II) mg/L	Sulfate mg/L	Field Sulfide mg/L	Carbon Dioxide mg/L	Alkalinity-Bicarbonate (as CaCO3) mg/L	Alkalinity-Carbonate (as CaCO3) mg/L	Methane mg/L	Ethane mg/L	Ethene mg/L	Volatile Fatty Acids mg/L	Chloride mg/L
MW-1	8/7/1991	NA	U	NA	NA	NA	NA	89	NA	NA	376	U	NA	NA	NA	NA	106
MW-1	12/17/1991	NA	NA	NA	NA	NA	NA	67	NA	NA	U	92	NA	NA	NA	NA	28
MW-1	1/13/1993	NA	0.02	NA	NA	NA	NA	142	NA	NA	288	U	NA	NA	NA	NA	67
MW-1	11/12/2003	4.5	U	3.3	NS	41	8	120	<0.1	200	160	U	0.18	0.0045	0.018	U	54
MW-2	8/7/1991	NA	U	NA	NA	NA	NA	39	NA	NA	13	U	NA	NA	NA	NA	376
MW-2	12/19/1991	NA	0.09	NA	NA	NA	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	342
MW-2	1/14/1993	NA	0.04	NA	NA	NA	NA	38	NA	NA	34	U	NA	NA	NA	NA	361
MW-2	10/06/98	<0.2	U	U	0.1	4.0	3.5	36	0	190	64	U	NA	NA	NA	24	NA
MW-3	08/07/91	NA	U	NA	NA	NA	NA	26	NA	NA	4.2	U	NA	NA	NA	NA	3.4
MW-3	12/19/91	NA	1.1	NA	NA	NA	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	34
MW-3	01/12/93	NA	0.71	NA	NA	NA	NA	28	NA	NA	5.4	U	NA	NA	NA	NA	16
MW-4	08/07/91	NA	U	NA	NA	NA	NA	22	NA	NA	56	U	NA	NA	NA	NA	175
MW-4	12/17/91	NA	NA	NA	NA	NA	NA	22	NA	NA	55	U	NA	NA	NA	NA	161
MW-4	01/13/93	NA	0.05	NA	NA	NA	NA	18	NA	NA	55	U	NA	NA	NA	NA	159
MW-4	11/12/03	0.9	U	0.33	0	5.0	4.5	20	0	160	59	U	0.32	0.039	0.21	U	190
MW-5	08/07/91	NA	U	NA	NA	NA	NA	37	NA	NA	29	U	NA	NA	NA	NA	38
MW-5	12/17/91	NA	NA	NA	NA	NA	NA	83	NA	NA	408	U	NA	NA	NA	NA	71
MW-5	01/13/93	NA	1.9	NA	NA	NA	NA	33	NA	NA	25	U	NA	NA	NA	NA	64
MW-5	10/06/98	0.4	U	0.16	0.1	U	0	55	0	150	40	U	NA	NA	NA	14	NA
MW-5 Dup.	10/06/98	0.4	U	0.15	0	U	0	53	0	155	35	U	NA	NA	NA	7.5	NA
MW-5	11/11/03	2	0.96	U	0	U	0	31	0	100	38	U	0.00023	0.000014	0.000073	50	24
MW-5	**03/30/05**	**2.5**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0.1**	**85**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-5	**11/08/05**	**3**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**100**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-6	08/07/91	NA	U	NA	NA	NA	NA	20	NA	NA	39	U	NA	NA	NA	NA	170
MW-6	12/17/91	NA	NA	NA	NA	NA	NA	14	NA	NA	84	U	NA	NA	NA	NA	191
MW-6	01/13/93	NA	0.47	NA	NA	NA	NA	12	NA	NA	111	U	NA	NA	NA	NA	255
MW-6	11/12/03	0.3	U	0.27	0	25	6	13	0.3	195	37	U	0.64	0.027	0.5	43	120
MW-7	08/07/91	NA	U	NA	NA	NA	NA	13	NA	NA	23	U	NA	NA	NA	NA	9.6
MW-7 DUP	08/07/91	NA	0.03	NA	NA	NA	NA	17	NA	NA	50	U	NA	NA	NA	NA	11
MW-7	12/19/91	NA	1.2	NA	NA	NA	NA	13	NA	NA	NA	NA	NA	NA	NA	NA	10
MW-7	01/13/93	NA	0.24	NA	NA	NA	NA	15	NA	NA	31	U	NA	NA	NA	NA	16
MW-7	11/12/03	1	U	0.08	0	7.6	0.25	11	0	90	44	U	0.00082	0.000021	0.000038	21	3.6
MW-8	12/18/91	NA	0.92	NA	NA	NA	NA	72	NA	NA	64	U	NA	NA	NA	NA	5.2 X
MW-8	01/13/93	NA	0.58	NA	NA	NA	NA	81	NA	NA	45	U	NA	NA	NA	NA	5.2
MW-8	11/12/03	0.3	U	0.23	0	10	70	71	0	120	39	U	0.02	0.0003	0.00032	50	3.2
MW-9	12/18/91	NA	1.1	NA	NA	NA	NA	9.8	NA	NA	U	6	NA	NA	NA	NA	7.7 X
MW-9	01/12/93	NA	U	NA	NA	NA	NA	13	NA	NA	93	U	NA	NA	NA	NA	3.5
MW-9 DUP	01/12/93	NA	0.05	NA	NA	NA	NA	14	NA	NA	92	U	NA	NA	NA	NA	3.8
MW-9	11/12/03	0.05	U	0.12	NS	2.9	2.6	12	<0.1	75	74	U	0.00051	0.000015	0.000056	43	4.2

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Electron Acceptors								Indicators of Degradation							
Well	Date	Dissolved Oxygen mg/L	Nitrate/ Nitrite (as N) mg/L	Total Manganese mg/L	Field Manganese mg/L	Total Iron mg/L	Field Iron (II) mg/L	Sulfate mg/L	Field Sulfide mg/L	Carbon Dioxide mg/L	Alkalinity-Bicarbonate (as CaCO3) mg/L	Alkalinity-Carbonate (as CaCO3) mg/L	Methane mg/L	Ethane mg/L	Ethene mg/L	Volatile Fatty Acids mg/L	Chloride mg/L
MW-10	12/17/91	NA	NA	NA	NA	NA	NA	30	NA	NA	32	U	NA	NA	NA	NA	39
MW-10	01/14/93	NA	0.13	NA	NA	NA	NA	39	NA	NA	26	102	NA	NA	NA	NA	40
MW-10	10/06/98	0.4	U	0.30	0.1	1.6	1.4	21	0	45	56	U	NA	NA	NA	5.8	NA
MW-10	11/11/03	0.4	U	0.33	0.2	1.4	1.5	22	0	65	43	U	0.00056	0.0000095	0.000018	21	35
MW-10	**03/30/05**	**0.4**	**NA**	**NA**	**0.2**	**NA**	**2.9**	**NA**	**0**	**65**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-10	**11/08/05**	**1**	**NA**	**NA**	**0**	**NA**	**2**	**NA**	**0**	**55**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-11	12/18/91	NA	0.51	NA	NA	NA	NA	112	NA	NA	81	U	NA	NA	NA	NA	12
MW-11	01/13/93	NA	0.26	NA	NA	NA	NA	118	NA	NA	117	U	NA	NA	NA	NA	9.6
MW-11	11/13/03	0.5	0.98	0.15	0.1	0.094	0	56	0	70	71	U	0.0054	0.00022	0.00026	21	2.5
MW-12	12/18/91	NA	0.45	NA	NA	NA	NA	17	NA	NA	80	U	NA	NA	NA	NA	10
MW-12	01/12/93	NA	1.2	NA	NA	NA	NA	18	NA	NA	43	U	NA	NA	NA	NA	9.6
MW-12	10/08/98	2.2	1.8	0.053	0	0.18	0.1	23	0	45	58	U	NA	NA	NA	4.8	NA
MW-12	11/12/03	2.5	1.2	0.021	NS	0.18	0	14	<0.1	110	42	U	0.001	0.000044	0.00034	28	2.8
MW-12 DUP	11/12/03	2.5	1.2	0.019	NS	0.15	0	14	<0.1	110	46	U	0.00068	0.00004	0.000055	28	2.7
MW-13	12/19/91	NA	1.1	NA	NA	NA	NA	23	NA	NA	43	U	NA	NA	NA	NA	24
MW-13	01/14/93	NA	0.65	NA	NA	NA	NA	22	NA	NA	25	U	NA	NA	NA	NA	33
MW-13	11/12/03	6	0.82	0.0068	0	0.34	0	19	0	50	26	U	0.0026	0.00014	0.00025	U	6.9
MW-14	12/17/91	NA	NA	NA	NA	NA	NA	24	NA	NA	1.7 X	U	NA	NA	NA	NA	43
MW-14	01/14/93	NA	0.36	NA	NA	NA	NA	19	NA	NA	34	U	NA	NA	NA	NA	30
MW-14	10/06/98	1.2	U	0.0020	0	U	0.1	18	0	55	41	U	NA	NA	NA	U	NA
MW-14	11/11/03	1.5	U	U	NS	U	0	20	<0.1	100	41	U	0.00051	0.000024	0.000039	21	32
MW-14	**03/30/05**	**0.15**	**NA**	**NA**	**0.8**	**NA**	**1.5**	**NA**	**0.1**	**35**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-14	**11/09/05**	**1**	**NA**	**NA**	**0**	**NA**	**1.8**	**NA**	**0**	**10**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-15	12/17/91	NA	NA	NA	NA	NA	NA	25	NA	NA	46	U	NA	NA	NA	NA	76
MW-15	01/13/93	NA	0.81	NA	NA	NA	NA	26	NA	NA	36	U	NA	NA	NA	NA	77
MW-15	11/12/03	1	1.8	0.0880	0	3.3	2	17	0	125	28	U	0.015	0.0005	0.00036	78	33
MW-16	12/17/91	NA	NA	NA	NA	NA	NA	25	NA	NA	66	U	NA	NA	NA	NA	68
MW-16	01/13/93	NA	0.79	NA	NA	NA	NA	28	NA	NA	26	U	NA	NA	NA	NA	107
MW-16	11/12/03	0.4	0.26	0.3300	0.2	0.51	0.7	20	0	175	6.5	U	0.17	0.0003	0.00067	71	540
MW-17	01/14/93	NA	0.02	NA	NA	NA	NA	95	NA	NA	60	U	NA	NA	NA	NA	21
MW-17	02/23/93	NA	U	NA	NA	NA	NA	47	NA	NA	64	U	NA	NA	NA	NA	23 X
MW-17 DUP	02/23/93	NA	0.05 X	NA	NA	NA	NA	109	NA	NA	63	U	NA	NA	NA	NA	26 X
MW-17	10/06/98	<0.2	U	0.32	0.1	5.2	4.3	87	0	45	60	U	NA	NA	NA	2.9	NA
MW-17	11/12/03	0.4	U	0.18	0.1	3.7	0	70	0.1	150	U	U	0.2	0.0065	0.0044	21	24
MW-17 DUP	11/12/03	0.4	U	0.18	0	3.7	0	70	0	140	U	U	0.2	0.0066	0.0046	21	24
MW-20	01/13/93	NA	1.5	NA	NA	NA	NA	43	NA	NA	36	U	NA	NA	NA	NA	7.5
MW-20	02/24/93	NA	0.89	NA	NA	NA	NA	63	NA	NA	29	U	NA	NA	NA	NA	12 X
MW-20	11/12/03	1	1.4	0.056	0	0.24	0	47	0	75	21	U	0.0034	0.00014	0.00037	28	8
MW-23S	01/12/93	NA	0.1	NA	NA	NA	NA	142	NA	NA	138	U	NA	NA	NA	NA	60
MW-23	02/23/93	NA	U	NA	NA	NA	NA	163	NA	NA	116	U	NA	NA	NA	NA	54
MW-23	11/13/03	1	U	2.2	0	0.21	0	90	0	90	100	U	0.96	0.021	0.0047	U	25

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Electron Acceptors								Indicators of Degradation							
Well	Date	Dissolved Oxygen mg/L	Nitrate/ Nitrite (as N) mg/L	Total Manganese mg/L	Field Manganese mg/L	Total Iron mg/L	Field Iron (II) mg/L	Sulfate mg/L	Field Sulfide mg/L	Carbon Dioxide mg/L	Alkalinity-Bicarbonate (as CaCO3) mg/L	Alkalinity-Carbonate (as CaCO3) mg/L	Methane mg/L	Ethane mg/L	Ethene mg/L	Volatile Fatty Acids mg/L	Chloride mg/L
MW-24	01/15/93	NA	0.25	NA	NA	NA	NA	20	NA	NA	18	U	NA	NA	NA	NA	85
MW-24	02/24/93	NA	U	NA	NA	NA	NA	56	NA	NA	45	U	NA	NA	NA	NA	114
MW-25S	01/12/93	NA	0.01	NA	NA	NA	NA	91	NA	NA	206	U	NA	NA	NA	NA	121
MW-25	02/24/93	NA	0.03 X	NA	NA	NA	NA	82	NA	NA	170	U	NA	NA	NA	NA	149
MW-25	11/13/03	3	U	0.055	0	0.43	0	28	0	80	63	U	1.1	0.096	0.72	U	33
MW-41	11/11/03	3	U	0.29	NS	U	0	53	<0.1	115	70	U	0.2	0.011	0.089	U	58
MW-41	**03/30/05**	**0.05**	**NA**	**NA**	**0.4**	**NA**	**4**	**NA**	**>5**	**25**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-41	**11/10/05**	**0.8**	**NA**	**NA**	**0**	**NA**	**0.3**	**NA**	**0.5**	**20**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-42	11/11/03	0.2	U	0.54	NS	U	3.2	75	0	115	72	U	0.2	0.006	0.022	U	60
MW-42	**03/30/05**	**0.2**	**NA**	**NA**	**0.3**	**NA**	**22 (10x)**	**NA**	**>25 (25x)**	**95**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-42	**11/09/05**	**0**	**NA**	**NA**	**0.5**	**NA**	**10 (2x)**	**NA**	**5**	**110**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-43	**03/29/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**130**	**NA**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-43	**11/10/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-44	**03/30/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**180**	**NA**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-44	**11/10/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-45	11/11/03	2	U	0.32	0	4.90	0	120	0	100	87	U	0.072	0.0049	0.091	U	38
MW-45	**03/29/05**	**1.5**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**80**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-45	**11/09/05**	**1**	**NA**	**NA**	**0.2**	**NA**	**0**	**NA**	**0**	**100**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-46	11/11/03	0.3	U	1.00	NS	1.10	2	110	<0.1	115	87	U	0.19	0.0044	0.016	36	38
MW-46	**03/29/05**	**0.2**	**NA**	**NA**	**0.3**	**NA**	**3**	**NA**	**0**	**45**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-46	**11/09/05**	**0.3**	**NA**	**NA**	**0.3**	**NA**	**3**	**NA**	**0**	**95**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-47	11/11/03	3	U	0.012	0	0.23	0	8.2	0	70	7.6	U	0.0021	0.0000053	0.000074	U	2.6
MW-47	**03/30/05**	**0**	**NA**	**NA**	**0.3**	**NA**	**55**	**NA**	**0**	**81**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-47	**11/09/05**	**0**	**NA**	**NA**	**0.2**	**NA**	**1**	**NA**	**0**	**30**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-48	11/11/03	0.7	U	0.16	0	0.11	0	20	0	100	20	U	0.00088	0.000029	0.00072	36	15
MW-48	**03/30/05**	**0**	**NA**	**NA**	**0.4**	**NA**	**60**	**NA**	**0**	**89.1**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-48	**11/9/205**	**0**	**NA**	**NA**	**0.1**	**NA**	**2.1**	**NA**	**0**	**35**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Electron Acceptors								Indicators of Degradation							
Well	Date	Dissolved Oxygen mg/L	Nitrate/ Nitrite (as N) mg/L	Total Manganese mg/L	Field Manganese mg/L	Total Iron mg/L	Field Iron (II) mg/L	Sulfate mg/L	Field Sulfide mg/L	Carbon Dioxide mg/L	Alkalinity-Bicarbonate (as CaCO3) mg/L	Alkalinity-Carbonate (as CaCO3) mg/L	Methane mg/L	Ethane mg/L	Ethene mg/L	Volatile Fatty Acids mg/L	Chloride mg/L
MW-49	**03/29/05**	**0**	**NA**	**NA**	**0.4**	**NA**	**190**	**NA**	**0**	**40**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-49	**11/10/05**	**0**	**NA**	**NA**	**0**	**NA**	**0.8**	**NA**	**0**	**20**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-50	**03/29/05**	**0**	**NA**	**NA**	**0.3**	**NA**	**110**	**NA**	**0**	**35**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-50	**11/10/05**	**1**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**5**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-51	11/11/03	0.6	0.29	0.019	0	0.48	0	16	0	100	20	U	0.00021	0.0000078	0.000064	21	13
MW-51	**03/29/05**	**0.9**	**NA**	**NA**	**0**	**NA**	**0.9**	**NA**	**0**	**45**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-51	**11/09/05**	**1**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**70**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-52	11/11/03	0.4	U	0.057	NS	0.29	0.4	25	<0.1	95	24	U	0.0018	0.000029	0.00024	28	17
MW-52	**03/29/05**	**1.5**	**NA**	**NA**	**0**	**NA**	**0.7**	**NA**	**0**	**45**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-52	**11/09/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**0.1**	**NA**	**0**	**65**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-53	11/11/03	0.7	0.66	0.020	0	U	0	22	0	100	14	U	0.00049	0.000011	0.0002	U	12
MW-53	**03/30/05**	**0.8**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**55**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-53	**11/08/05**	**0.4**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**75**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-54	11/11/03	0.6	0.41	0.03	0	0.16	0	22	0	90	23	U	0.0013	0.000024	0.0009	21	13
MW-54	**03/30/05**	**0.4**	**NA**	**NA**	**0**	**NA**	**0.1**	**NA**	**0**	**45**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
MW-54	**11/08/05**	**0.2**	**NA**	**NA**	**0**	**NA**	**0**	**NA**	**0**	**95**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
RT-1	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-1 DUP	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-1	11/13/03	1.5	U	0.11	NS	U	0	93	<0.1	125	52	U	0.0034	0.0001	U	43	65
RT-2	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-2	11/12/03	5	U	0.64	0.2	U	0	55	0	250	160	U	1.3	0.098	0.2	U	82
RT-3	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-3	11/13/03	12	U	1.1	NS	U	0.6	56	<0.1	250	120	U	1.1	0.1	0.35	21	94
RT-5	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-5	11/13/03	1	U	0.7	NS	0.96	1.4	110	<0.1	115	52	U	0.16	0.0034	0.0098	U	37

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Nutrients					Geochemical Parameters				
Well	Date	TOC mg/L	Total Phosphorus (as P) mg/L	TKN mg/L	Ammonia (as N), Non Distilled mg/L	Nitrate/ Nitrite (as N) mg/L	pH	Conductivity µmhos/cm	TDS mg/L	Temperature °F	Eh mV
MW-1	8/7/1991	NA	NA	NA	NA	U	NA	NA	706	NA	NA
MW-1	12/17/1991	NA	NA	NA	NA	NA	NA	NA	499	NA	NA
MW-1	1/13/1993	NA	NA	NA	NA	0.02	NA	NA	642	NA	NA
MW-1	11/12/2003	3.1	6.9	1.2	U	U	6.58	730	NS	21.4	-45
MW-2	8/7/1991	NA	NA	NA	NA	U	NA	NA	812	NA	NA
MW-2	12/19/1991	NA	NA	NA	NA	0.09	NA	NA	821	NA	NA
MW-2	1/14/1993	NA	NA	NA	NA	0.04	NA	NA	759	NA	NA
MW-2	10/06/98	NA	0.10	0.48	0.13	U	NA	NA	NA	NA	126
MW-3	08/07/91	NA	NA	NA	NA	U	NA	NA	113	NA	NA
MW-3	12/19/91	NA	NA	NA	NA	1.1	NA	NA	308	NA	NA
MW-3	01/12/93	NA	NA	NA	NA	0.71	NA	NA	159	NA	NA
MW-4	08/07/91	NA	NA	NA	NA	U	NA	NA	427	NA	NA
MW-4	12/17/91	NA	NA	NA	NA	NA	NA	NA	375	NA	NA
MW-4	01/13/93	NA	NA	NA	NA	0.05	NA	NA	479	NA	NA
MW-4	11/12/03	3.5	0.47	U	U	U	5.90	695	NS	21.1	47
MW-5	08/07/91	NA	NA	NA	NA	U	NA	NA	227	NA	NA
MW-5	12/17/91	NA	NA	NA	NA	NA	NA	NA	610	NA	NA
MW-5	01/13/93	NA	NA	NA	NA	1.9	NA	NA	221	NA	NA
MW-5	10/06/98	NA	0.033	U	U	U	NA	NA	NA	NA	281
MW-5 Dup.	10/06/98	NA	0.028	U	U	U	NA	NA	NA	NA	281
MW-5	11/11/03	U	0.077	U	U	0.96	5.9	233	NS	19.8	224
MW-5	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.6**	**387**	**NA**	**18.4**	**-163**
MW-5	**11/08/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.1**	**223**	**NA**	**22.3**	**215**
MW-6	08/07/91	NA	NA	NA	NA	U	NA	NA	510	NA	NA
MW-6	12/17/91	NA	NA	NA	NA	NA	NA	NA	465	NA	NA
MW-6	01/13/93	NA	NA	NA	NA	0.47	NA	NA	672	NA	NA
MW-6	11/12/03	16	1.1	U	U	U	5.78	510	NS	23.6	-27
MW-7	08/07/91	NA	NA	NA	NA	U	NA	NA	571	NA	NA
MW-7 DUP	08/07/91	NA	NA	NA	NA	0.03	6.69	NA	377	NA	NA
MW-7	12/19/91	NA	NA	NA	NA	1.2	NA	NA	300	NA	NA
MW-7	01/13/93	NA	NA	NA	NA	0.24	NA	NA	129	NA	NA
MW-7	11/12/03	1.2	0.2	U	U	U	6.2	94	NS	18.3	275
MW-8	12/18/91	NA	NA	NA	NA	0.92	NA	NA	209	NA	NA
MW-8	01/13/93	NA	NA	NA	NA	0.58	NA	NA	208	NA	NA
MW-8	11/12/03	U	0.48	U	U	U	5.9	273	NS	17.4	133
MW-9	12/18/91	NA	NA	NA	NA	1.1	NA	NA	466	NA	NA
MW-9	01/12/93	NA	NA	NA	NA	U	NA	NA	171	NA	NA
MW-9 DUP	01/12/93	NA	NA	NA	NA	0.05	NA	NA	169	NA	NA
MW-9	11/12/03	U	0.058	U	U	U	6.59	170	NS	21.7	74

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Nutrients					Geochemical Parameters				
Well	Date	TOC mg/L	Total Phosphorus (as P) mg/L	TKN mg/L	Ammonia (as N), Non Distilled mg/L	Nitrate/ Nitrite (as N) mg/L	pH	Conductivity µmhos/cm	TDS mg/L	Temperature °F	Eh mV
MW-10	12/17/91	NA	NA	NA	NA	NA	NA	NA	162	NA	NA
MW-10	01/14/93	NA	NA	NA	NA	0.13	NA	NA	338	NA	NA
MW-10	10/06/98	NA	0.058	U	0.11	U	NA	NA	NA	NA	236
MW-10	11/11/03	U	0.044	U	U	U	6	253	NS	19.5	113
MW-10	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.8**	**259**	**NA**	**19.8**	**-110**
MW-10	**11/08/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7**	**278**	**NA**	**18.7**	**117**
MW-11	12/18/91	NA	NA	NA	NA	0.51	NA	NA	588	NA	NA
MW-11	01/13/93	NA	NA	NA	NA	0.26	NA	NA	380	NA	NA
MW-11	11/13/03	U	0.18	U	U	0.98	6.2	277	NS	17.3	238
MW-12	12/18/91	NA	NA	NA	NA	0.45	NA	NA	245	NA	NA
MW-12	01/12/93	NA	NA	NA	NA	1.2	NA	NA	129	NA	NA
MW-12	10/08/98	NA	0.15	U	U	1.8	NA	NA	NA	NA	190
MW-12	11/12/03	U	0.17	U	U	1.2	6.04	130	NS	23.3	314
MW-12 DUP	11/12/03	U	0.17	U	U	1.2	6.04	130	NS	23.3	314
MW-13	12/19/91	NA	NA	NA	NA	1.1	NA	NA	450	NA	NA
MW-13	01/14/93	NA	NA	NA	NA	0.65	NA	NA	147	NA	NA
MW-13	11/12/03	U	0.049	U	U	0.82	6	128	NS	19.6	250
MW-14	12/17/91	NA	NA	NA	NA	NA	NA	NA	246	NA	NA
MW-14	01/14/93	NA	NA	NA	NA	0.36	NA	NA	165	NA	NA
MW-14	10/06/98	NA	0.066	U	U	U	NA	NA	NA	NA	320
MW-14	11/11/03	U	0.063	U	U	U	5.96	220	NS	22.1	383
MW-14	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7.28**	**369**	**NA**	**19.3**	**-16**
MW-14	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7.6**	**215**	**NA**	**21**	**-130**
MW-15	12/17/91	NA	NA	NA	NA	NA	NA	NA	312	NA	NA
MW-15	01/13/93	NA	NA	NA	NA	0.81	NA	NA	260	NA	NA
MW-15	11/12/03	1.1	0.18	U	U	1.8	5.9	197	NS	19.6	380
MW-16	12/17/91	NA	NA	NA	NA	NA	NA	NA	2250	NA	NA
MW-16	01/13/93	NA	NA	NA	NA	0.79	NA	NA	300	NA	NA
MW-16	11/12/03	1.4	U	U	U	0.26	4.1	1634	NS	18.8	245
MW-17	01/14/93	NA	NA	NA	NA	0.02	NA	NA	264	NA	NA
MW-17	02/23/93	NA	NA	NA	NA	U	NA	NA	288	NA	NA
MW-17 DUP	02/23/93	NA	NA	NA	NA	0.05 X	NA	NA	280	NA	NA
MW-17	10/06/98	NA	0.10	U	0.17	U	NA	NA	NA	NA	180
MW-17	11/12/03	U	0.03	U	U	U	6.00	341	NS	20	71
MW-17 DUP	11/12/03	U	0.025	U	U	U	6.00	341	NS	20	78
MW-20	01/13/93	NA	NA	NA	NA	1.5	NA	NA	153	NA	NA
MW-20	02/24/93	NA	NA	NA	NA	0.89	NA	NA	187	NA	NA
MW-20	11/12/03	U	0.044	U	U	1.4	5.9	159	NS	23.9	354
MW-23S	01/12/93	NA	NA	NA	NA	0.1	NA	NA	614	NA	NA
MW-23	02/23/93	NA	NA	NA	NA	U	NA	NA	454	NA	NA
MW-23	11/13/03	2.8	0.058	U	U	U	6.4	370	NS	17.5	283

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Nutrients					Geochemical Parameters				
Well	Date	TOC mg/L	Total Phosphorus (as P) mg/L	TKN mg/L	Ammonia (as N), Non Distilled mg/L	Nitrate/ Nitrite (as N) mg/L	pH	Conductivity µmhos/cm	TDS mg/L	Temperature °F	Eh mV
MW-24	01/15/93	NA	NA	NA	NA	0.25	NA	NA	351	NA	NA
MW-24	02/24/93	NA	NA	NA	NA	U	NA	NA	353	NA	NA
MW-25S	01/12/93	NA	NA	NA	NA	0.01	NA	NA	1180	NA	NA
MW-25	02/24/93	NA	NA	NA	NA	0.03 X	NA	NA	690	NA	NA
MW-25	11/13/03	4.4	0.22	U	U	U	6.4	260	NS	17.7	205
MW-41	11/11/03	2.4	0.049	U	U	U	5.97	390	NS	19.9	313
MW-41	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.7**	**333**	**NA**	**19.6**	**NA**
MW-41	**11/10/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7.5**	**330**	**NA**	**19.4**	**-155**
MW-42	11/11/03	1.9	0.044	U	U	U	6	520	NS	21	80
MW-42	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.9**	**520**	**NA**	**20.2**	**-199**
MW-42	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.6**	**732**	**NA**	**20.3**	**-81**
MW-43	**03/29/05**	**140**	**NA**	**NA**	**NA**	**NA**	**10.64**	**769**	**NA**	**18.4**	**-660**
MW-43	**11/10/05**	**14**	**NA**	**NA**	**NA**	**NA**	**10.4**	**576**	**NA**	**19.8**	**-421**
MW-44	**03/30/05**	**46**	**NA**	**NA**	**NA**	**NA**	**10.87**	**426**	**NA**	**18.6**	**-790**
MW-44	**11/10/05**	**15**	**NA**	**NA**	**NA**	**NA**	**10.8**	**447**	**NA**	**16.7**	**-475**
MW-45	11/11/03	1.7	0.039	U	U	U	5.8	492	NS	19.1	206
MW-45	**03/29/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.8**	**462**	**NA**	**18.4**	**-15**
MW-45	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6**	**449**	**NA**	**19.8**	**NA**
MW-46	11/11/03	2	U	U	U	U	6.08	460	NS	21.9	250
MW-46	**03/29/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6**	**436**	**NA**	**18**	**-59**
MW-46	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.1**	**462**	**NA**	**19.6**	**65**
MW-47	11/11/03	U	0.039	U	U	U	5.8	410	NS	21.4	355
MW-47	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7.12**	**328**	**NA**	**18.8**	**91**
MW-47	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.8**	**147**	**NA**	**20**	**-77**
MW-48	11/11/03	U	0.02	U	U	U	5.9	120	NS	20	367
MW-48	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**7.22**	**310**	**NA**	**19.8**	**-87**
MW-48	**11/9/205**	**NA**	**NA**	**NA**	**NA**	**NA**	**6.8**	**282**	**NA**	**19.6**	**-85**

TABLE 3-4

BIOREMEDIATION PARAMETERS

Grenada Manufacturing Site
Grenada, Mississippi

		Nutrients					Geochemical Parameters				
Well	Date	TOC mg/L	Total Phosphorus (as P) mg/L	TKN mg/L	Ammonia (as N), Non Distilled mg/L	Nitrate/ Nitrite (as N) mg/L	pH	Conductivity µmhos/cm	TDS mg/L	Temperature °F	Eh mV
MW-49	**03/29/05**	**2.7**	**NA**	**NA**	**NA**	**NA**	**6.8**	**228**	**NA**	**17.5**	**-150**
MW-49	**11/10/05**	**8.3**	**NA**	**NA**	**NA**	**NA**	**7.1**	**167**	**NA**	**NA**	**-259**
MW-50	**03/29/05**	**8.0**	**NA**	**NA**	**NA**	**NA**	**7.8**	**199**	**NA**	**18.4**	**-107**
MW-50	**11/10/05**	**1.9**	**NA**	**NA**	**NA**	**NA**	**9.5**	**49**	**NA**	**20.5**	**-269**
MW-51	11/11/03	U	0.054	U	U	0.29	5.7	100	NS	21.2	367
MW-51	**03/29/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.2**	**72**	**NA**	**18.5**	**20**
MW-51	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.4**	**80**	**NA**	**20.1**	**92**
MW-52	11/11/03	U	0.02	U	U	U	5.73	160	NS	20.6	285
MW-52	**03/29/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.2**	**141**	**NA**	**18.3**	**72**
MW-52	**11/09/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.8**	**151**	**NA**	**21**	**105**
MW-53	11/11/03	U	0.035	U	U	0.66	5.7	111	NS	20	335
MW-53	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.4**	**128**	**NA**	**NA**	**10**
MW-53	**11/08/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.5**	**109**	**NA**	**19.4**	**113**
MW-54	11/11/03	U	0.044	U	U	0.41	7.2	110	NS	18.9	320
MW-54	**03/30/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.6**	**134**	**NA**	**18.1**	**-45**
MW-54	**11/08/05**	**NA**	**NA**	**NA**	**NA**	**NA**	**5.7**	**150**	**NA**	**19**	**127**
RT-1	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-1 DUP	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-1	11/13/03	1.6	0.035	U	U	U	5.75	480	NS	21.8	323
RT-2	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-2	11/12/03	3.2	0.039	U	U	U	6	677	NS	21.2	313
RT-3	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-3	11/13/03	2.9	0.073	U	U	U	6.04	640	NS	20.6	250
RT-5	01/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
RT-5	11/13/03	1.6	0.073	U	U	U	5.79	440	NS	16.7	180

Notes:
U = Not Detected
D = Sample was diluted
J = Sample was estimated
B = The constituent was also detected in a blank
E = Exceeds the highest concentration level on the standard curve
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed
NS = Not Sampled

3.1.1 Groundwater Elevations

The water level elevations obtained for each of the wells sampled during 2005, along with the historical groundwater elevations, are listed in Table 3-5. The measurements were used to evaluate the potentiometric surface of the water table aquifer for estimation of groundwater flow direction and gradient. Figure 3-1 and Figure 3-2 show the potentiometric surface map for the uppermost portion of the Upper Aquifer near the PRB for March 2005 and November 2005, respectively. Figures 3-3 and 3-4 show the potentiometric surface map for the lower portion of the Upper Aquifer for March 2005 and November 2005, respectively. The groundwater flow direction within the water table aquifer was determined to be to the west toward Riverdale Creek, which is consistent with past observations of groundwater flow direction.

Several well pairs have been installed in the vicinity of the PRB to help gauge the differences in water elevations upgradient and downgradient of the PRB within both the lower and upper portions of the Upper Aquifer. During the baseline monitoring event, groundwater elevation data from the monitoring wells in the vicinity of the proposed PRB indicated a horizontal gradient toward Riverdale Creek that ranged between 0.0025 and 0.0068. In March and November 2005, groundwater elevation measurements recorded at well couplets MW-41/MW-45, MW-47/MW-51, MW42/MW-46, and MW-48/MW-52 after PRB installation indicated no change in gradient direction, but gradients increased generally, with values ranging from 0.005 to 0.015. Couplets MW-41/MW-45 and MW-42/MW-46 were at the higher end of this range during both 2005 sampling events.

3.1.2 VOCs

Figure 3-5 shows the 2003 baseline results for TCE, cis-1,2-DCE, and vinyl chloride from the monitoring wells in the upper and lower portions of the Upper Aquifer along with the results for TCE, cis-1,2-DCE, and vinyl chloride gathered from the two 2005 sampling events. A review of the historical TCE data indicates that, in general, the groundwater concentrations upgradient of the PRB have remained consistent over the sampling history and concentrations downgradient of the PRB have generally declined.

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-1	2457977.735	1566416.868	Upper	12/19/1991	183.70	183.45	16.5	11.74	171.71
				1/22/1993	183.70	183.45	16.5	12.33	171.12
				2/24/1993	183.70	183.45	16.5	12.11	171.34
				5/25/1993	183.70	183.45	16.5	11.62	171.83
				7/13/1993	183.70	183.45	16.5	12.05	171.40
				11/30/1993	183.70	183.45	16.5	13.09	170.36
				10/5/1998	183.70	183.45	16.5	12.66	170.79
				10/10/2000	183.70	183.45	16.5	14.26	169.19
				10/26/2000	183.70	183.45	16.5	14.34	169.11
				12/21/2000	183.70	183.45	16.5	NA	NA
				11/12/2003	183.70	183.45	16.5	12.29	171.16
MW-2	2457463.002	1566671.862	Upper	12/19/1991	177.10	179.87	20.55	10.6	169.27
				1/22/1993	177.10	179.87	20.55	11.46	168.41
				2/24/1993	177.10	179.87	20.55	11.7	168.17
				5/25/1993	177.10	179.87	20.55	11.36	168.51
				7/13/1993	177.10	179.87	20.55	12.05	167.82
				11/30/1993	177.10	179.87	20.55	12.65	167.22
				10/5/1998	177.10	179.87	20.55	12.96	166.91
				10/10/2000	177.10	179.87	20.55	NAPL	NM
				10/26/2000	177.10	179.87	20.55	NAPL	NM
				12/21/2000	177.10	179.87	20.55	NAPL	NM
				11/12/2003	177.10	179.87	20.55	NAPL	NM
MW-3	2458006.138	1565944.074	Upper	12/19/1991	183.80	183.46	11.1	11.27	172.19
				1/22/1993	183.80	183.46	11.1	11.85	171.61
				2/24/1993	183.80	183.46	11.1	11.48	171.98
				5/25/1993	183.80	183.46	11.1	10.7	172.76
				7/13/1993	183.80	183.46	11.1	11.39	172.07
				11/30/1993	183.80	183.46	11.1	NM	NM
				10/5/1998	183.80	183.46	11.1	11.1	172.36
				10/10/2000	183.80	183.46	11.1	DRY	DRY
				10/26/2000	183.80	183.46	11.1	DRY	DRY
				12/21/2000	183.80	183.46	11.1	DRY	DRY
				11/12/2003	183.80	183.46	11.1	DRY	DRY
MW-4	2457518.884	1566261.781	Upper	12/19/1991	180.80	182.9	19.78	12.77	170.13
				1/22/1993	180.80	182.9	19.78	13.6	169.30
				2/24/1993	180.80	182.9	19.78	13.85	169.05
				5/25/1993	180.80	182.9	19.78	13.61	169.29
				7/13/1993	180.80	182.9	19.78	14.53	168.37
				11/30/1993	180.80	182.9	19.78	15.34	167.56
				10/5/1998	180.80	182.9	19.78	15.6	167.30
				10/10/2000	180.80	182.9	19.78	16.38	166.52
				10/26/2000	180.80	182.9	19.78	16.51	166.39
				12/21/2000	180.80	182.9	19.78	NA	NA
				11/12/2003	180.80	182.9	19.78	14.78	168.12
MW-5	2457100.33	1566957.806	Upper	12/19/1991	178.50	180.68	22.35	12.8	167.88
				1/22/1993	178.50	180.68	22.35	13.81	166.87
				2/24/1993	178.50	180.68	22.35	14.15	166.53
				5/25/1993	178.50	180.68	22.35	13.75	166.93
				7/13/1993	178.50	180.68	22.35	14.27	166.41
				11/30/1993	178.50	180.68	22.35	14.7	165.98
				10/5/1998	178.50	180.68	22.35	15.18	165.50
				10/10/2000	178.50	180.68	22.35	15.22	165.46
				10/26/2000	178.50	180.68	22.35	15.25	165.43
				12/21/2000	178.50	180.68	22.35	NA	NA
				11/11/2003	178.50	180.68	22.35	14.43	166.25
				5/12/2004	178.50	180.68	22.04	14.58	166.10
				3/29/2005	**178.50**	**180.68**	**22.35**	**13.33**	**167.35**
				11/7/2005	**178.50**	**180.68**	**22.35**	**14.09**	**166.59**

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-6	2457449.475	1566414.159	Upper	12/19/1991	176.30	178.66	18.66	8.81	169.85
				1/22/1993	176.30	178.66	18.66	9.71	168.95
				2/24/1993	176.30	178.66	18.66	9.94	168.72
				5/25/1993	176.30	178.66	18.66	9.71	168.95
				7/13/1993	176.30	178.66	18.66	10.58	168.08
				11/30/1993	176.30	178.66	18.66	11.32	167.34
				10/5/1998	176.30	178.66	18.66	11.54	167.12
				10/10/2000	176.30	178.66	18.66	14.09	164.57
				10/26/2000	176.30	178.66	18.66	12.36	166.30
				12/21/2000	176.30	178.66	18.66	NA	NA
				11/12/2003	176.30	178.66	18.66	10.76	167.90
MW-7	2458880.978	1565137.53	Upper	12/19/1991	185.40	185.13	16.2	11.04	174.09
				1/22/1993	185.40	185.13	16.2	11.58	173.55
				2/24/1993	185.40	185.13	16.2	11.05	174.08
				5/25/1993	185.40	185.13	16.2	10.31	174.82
				7/13/1993	185.40	185.13	16.2	11.24	173.89
				11/30/1993	185.40	185.13	16.2	12.71	172.42
				10/10/2000	185.40	185.13	16.2	14.19	170.94
				10/26/2000	185.40	185.13	16.2	14.30	170.83
				12/21/2000	185.40	185.13	16.2	NA	NA
				11/13/2003	185.40	185.13	16.2	11.26	173.87
MW-8	2459107.568	1565720.982	Lower	12/19/1991	180.30	182.86	44	9.15	173.71
				1/22/1993	180.30	182.86	44	9.75	173.11
				2/24/1993	180.30	182.86	44	9.5	173.36
				5/25/1993	180.30	182.86	44	8.72	174.14
				7/13/1993	180.30	182.86	44	9.35	173.51
				11/30/1993	180.30	182.86	44	10.5	172.36
				10/10/2000	180.30	182.86	44	11.93	170.93
				10/26/2000	180.30	182.86	44	12.02	170.84
				12/21/2000	180.30	182.86	44	NA	NA
				11/13/2003	180.30	182.86	50	9.61	173.25
MW-9	2457830.899	1565534.024	Lower	12/19/1991	181.10	180.74	75	4.09	176.65
				1/22/1993	181.10	180.74	75	2.81	177.93
				2/24/1993	181.10	180.74	75	2.73	178.01
				5/25/1993	181.10	180.74	75	2.08	178.66
				7/13/1993	181.10	180.74	75	6.01	174.73
				11/30/1993	181.10	180.74	75	3.09	177.65
				10/10/2000	181.10	180.74	75	NA	NA
				10/26/2000	181.10	180.74	75	NA	NA
				12/21/2000	181.10	180.74	75	NA	NA
				11/12/2003	181.10	180.74	75	2.2	178.54
MW-10	2457112.954	1566958.818	Lower	12/19/1991	178.00	180.8	50.15	12.72	168.08
				1/22/1993	178.00	180.8	50.15	13.78	167.02
				2/24/1993	178.00	180.8	50.15	14.17	166.63
				5/25/1993	178.00	180.8	50.15	13.81	166.99
				7/13/1993	178.00	180.8	50.15	14.21	166.59
				11/30/1993	178.00	180.8	50.15	14.75	166.05
				10/5/1998	178.00	180.8	50.15	15.18	165.62
				10/10/2000	178.00	180.8	50.15	15.25	165.55
				10/26/2000	178.00	180.8	50.15	15.28	165.52
				12/21/2000	178.00	180.8	50.15	NA	NA
				11/11/2003	178.00	180.8	50.15	14.39	166.41
				2/19/2004	178.00	180.8	49.80	14.62	166.18
				5/12/2004	178.00	180.8	49.80	15.43	165.37
				3/29/2005	**178.00**	**180.8**	**50.05**	**14.06**	**166.74**
				11/7/2005	**178.00**	**180.8**	**50.05**	**15.01**	**165.79**

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-11	2459113.012	1565715.12	Upper	12/19/1991	180.30	182.59	20.85	9	173.59
				1/22/1993	180.30	182.59	20.85	9.6	172.99
				2/24/1993	180.30	182.59	20.85	9.27	173.32
				5/25/1993	180.30	182.59	20.85	8.51	174.08
				7/13/1993	180.30	182.59	20.85	9.21	173.38
				11/30/1993	180.30	182.59	20.85	10.5	172.09
				10/10/2000	180.30	182.59	20.85	11.90	170.69
				10/26/2000	180.30	182.59	20.85	12.00	170.59
				12/21/2000	180.30	182.59	20.85	NA	NA
				11/13/2003	180.30	182.59	20.85	9.56	173.03
MW-12	2457823.872	1565537.848	Upper	12/19/1991	181.00	180.67	22.45	8.17	172.50
				1/22/1993	181.00	180.67	22.45	8.66	172.01
				2/24/1993	181.00	180.67	22.45	8.36	172.31
				5/25/1993	181.00	180.67	22.45	7.58	173.09
				7/13/1993	181.00	180.67	22.45	8.7	171.97
				11/30/1993	181.00	180.67	22.45	10.32	170.35
				10/5/1998	181.00	180.67	22.45	8.9	171.77
				10/10/2000	181.00	180.67	22.45	11.85	168.82
				10/26/2000	181.00	180.67	22.45	11.98	168.69
				12/21/2000	181.00	180.67	22.45	NA	NA
				11/12/2003	181.00	180.67	22.45	9.12	171.55
MW-13	2457431.236	1566917.817	Upper	12/19/1991	177.40	180.12	23.96	11.1	169.02
				1/22/1993	177.40	180.12	23.96	11.91	168.21
				2/24/1993	177.40	180.12	23.96	12.09	168.03
				5/25/1993	177.40	180.12	23.96	11.72	168.40
				7/13/1993	177.40	180.12	23.96	12.26	167.86
				11/30/1993	177.40	180.12	23.96	12.72	167.40
				10/10/2000	177.40	180.12	23.96	13.50	166.62
				10/26/2000	177.40	180.12	23.96	13.57	166.55
				12/21/2000	177.40	180.12	23.96	NA	NA
				11/12/2003	177.40	180.12	23.96	12.35	167.77
				5/12/2004	177.40	180.12	23.90	12.20	167.92
MW-14	2456971.929	1566979.615	Upper	12/19/1991	178.80	181.44	27.27	14.26	167.18
				1/22/1993	178.80	181.44	27.27	15.5	165.94
				2/24/1993	178.80	181.44	27.27	15.93	165.51
				5/25/1993	178.80	181.44	27.27	15.42	166.02
				7/13/1993	178.80	181.44	27.27	15.93	165.51
				11/30/1993	178.80	181.44	27.27	16.27	165.17
				10/5/1998	178.80	181.44	27.27	16.88	164.56
				10/10/2000	178.80	181.44	27.27	16.64	164.80
				10/26/2000	178.80	181.44	27.27	16.64	164.80
				12/21/2000	178.80	181.44	27.27	NA	NA
				11/11/2003	178.80	181.44	27.27	16.03	165.41
				2/19/2004	178.80	181.44	26.99	16.48	164.96
				5/12/2004	178.80	181.44	26.99	17.40	164.04
				3/29/2005	**178.80**	**181.44**	**27.17**	**16.22**	**165.22**
				11/9/2005	**178.80**	**181.44**	**27.17**	**16.98**	**164.46**
MW-15	2457532.398	1566161.732	Upper	12/19/1991	180.90	183.67	23.62	13.08	170.59
				1/22/1993	180.90	183.67	23.62	13.9	169.77
				2/24/1993	180.90	183.67	23.62	14.16	169.51
				5/25/1993	180.90	183.67	23.62	13.93	169.74
				7/13/1993	180.90	183.67	23.62	15.02	168.65
				11/30/1993	180.90	183.67	23.62	15.93	167.74
				10/5/1998	180.90	183.67	23.62	16.08	167.59
				10/10/2000	180.90	183.67	23.62	17.00	166.67
				10/26/2000	180.90	183.67	23.62	17.11	166.56
				12/21/2000	180.90	183.67	23.62	NA	NA
				11/12/2003	180.90	183.67	23.62	15.19	168.48
				2/19/2004	180.90	183.67	23.34	13.08	170.59
				5/12/2004	180.90	183.67	23.34	14.46	169.21

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-16	2457315.867	1566239.806	Upper	12/19/1991	175.50	178.57	17.88	8.46	170.11
				1/22/1993	175.50	178.57	17.88	9.38	169.19
				2/24/1993	175.50	178.57	17.88	9.73	168.84
				5/25/1993	175.50	178.57	17.88	9.55	169.02
				7/13/1993	175.50	178.57	17.88	10.56	168.01
				11/30/1993	175.50	178.57	17.88	11.36	167.21
				10/5/1998	175.50	178.57	17.88	11.62	166.95
				10/10/2000	175.50	178.57	17.88	12.40	166.17
				10/26/2000	175.50	178.57	17.88	12.46	166.11
				12/21/2000	175.50	178.57	17.88	NA	NA
				11/12/2003	175.50	178.57	17.88	10.75	167.82
				2/19/2004	175.50	178.57	17.60	8.55	170.02
				5/12/2004	175.50	178.57	17.60	10.14	168.43
MW-17	2457453.675	1566688.482	Lower	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	176.20	178.97	48.75	10.72	168.25
				2/24/1993	176.20	178.97	48.75	10.94	168.03
				5/25/1993	176.20	178.97	48.75	10.57	168.40
				7/13/1993	176.20	178.97	48.75	11.16	167.81
				11/30/1993	176.20	178.97	48.75	11.72	167.25
				10/5/1998	176.20	178.97	48.75	12	166.97
				10/10/2000	176.20	178.97	48.75	12.55	166.42
				10/26/2000	176.20	178.97	48.75	12.55	166.42
				12/21/2000	176.20	178.97	48.75	NA	NA
				11/12/2003	176.20	178.97	48.75	11.3	167.67
				2/19/2004	176.20	178.97	48.44	10.30	168.67
				5/12/2004	176.20	178.97	48.44	11.14	167.83
MW-20	2458442.219	1566473.171	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	182.70	182.35	24.2	10.55	171.80
				2/24/1993	182.70	182.35	24.2	10.31	172.04
				5/25/1993	182.70	182.35	24.2	9.65	172.70
				7/13/1993	182.70	182.35	24.2	10.12	172.23
				11/30/1993	182.70	182.35	24.2	11.07	171.28
				10/10/2000	182.70	182.35	24.2	NA	NA
				10/26/2000	182.70	182.35	24.2	NA	NA
				12/21/2000	182.70	182.35	24.2	NA	NA
				11/12/2003	182.70	182.35	24.2	10.24	172.11
MW-23	2458509.994	1566050.69	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	181.90	181.61	22.5	9.67	171.94
				2/24/1993	181.90	181.61	22.5	9.28	172.33
				5/25/1993	181.90	181.61	22.5	7.57	174.04
				7/13/1993	181.90	181.61	22.5	9.18	172.43
				11/30/1993	181.90	181.61	22.5	10.5	171.11
				10/5/1998	181.90	181.61	22.5	9.82	171.79
				10/10/2000	181.90	181.61	22.5	11.76	169.85
				10/26/2000	181.90	181.61	22.5	11.87	169.74
				12/21/2000	181.90	181.61	22.5	NA	NA
				11/13/2003	181.90	181.61	22.5	9.57	172.04
MW-24	2458636.134	1565861.038	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	181.60	181.17	20.03	NMb	NM
				2/24/1993	181.60	181.17	20.03	NM	NM
				5/25/1993	181.60	181.17	20.03	NM	NM
				7/13/1993	181.60	181.17	20.03	NM	NM
				11/30/1993	181.60	181.17	20.03	NM	NM
				10/10/2000	181.60	181.17	20.03	NAPL	NM
				10/26/2000	181.60	181.17	20.03	NAPL	NM
				12/21/2000	181.60	181.17	20.03	NAPL	NM
				11/13/2003	181.60	181.17	20.03	13.3*	167.87

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-25	2458814.736	1565735.858	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	181.50	181.19	22.4	8.73	172.46
				2/24/1993	181.50	181.19	22.4	8.31	172.88
				5/25/1993	181.50	181.19	22.4	7.58	173.61
				7/13/1993	181.50	181.19	22.4	8.28	172.91
				11/30/1993	181.50	181.19	22.4	9.62	171.57
				10/10/2000	181.50	181.19	22.4	10.50	170.69
				10/26/2000	181.50	181.19	22.4	11.07	170.12
				12/21/2000	181.50	181.19	22.4	NA	NA
				11/13/2003	181.50	181.19	22.4	8.2	172.99
MW-41	2456941.076	1566720.013	Upper	11/10/2003	NA	179.28	27.2	13.71	165.57
				2/19/2004	NA	179.28	26.90	12.74	166.54
				5/12/2004	NA	179.28	26.90	14.92	164.36
				3/29/2005	**NA**	**179.24**	**27.20**	**13.50**	**165.74**
				11/7/2005	**NA**	**179.24**	**27.20**	**14.89**	**164.35**
MW-42	2456942.981	1566729.885	Lower	11/10/2003	NA	179.62	50.42	14.19	165.43
				2/19/2004	NA	179.62	50.30	13.17	166.45
				5/12/2004	NA	179.62	50.30	15.40	164.22
				3/29/2005	**NA**	**179.58**	**50.45**	**14.06**	**165.52**
				11/7/2005	**NA**	**179.58**	**50.45**	**15.15**	**164.43**
MW-43	**2457013.90**	**1566718.457**	**PRB**	**3/29/2005**	**179.3**	**179.17**	**24.35**	**12.66**	**166.51**
				11/7/2005	**179.3**	**179.17**	**24.35**	**14.93**	**164.24**
MW-44	**2457017.92**	**1566729.756**	**PRB**	**3/29/2005**	**179.1**	**178.90**	**46.1**	**12.05**	**166.85**
				11/7/2005	**179.1**	**178.90**	**46.1**	**13.98**	**164.92**
MW-45	2457105.423	1566690.483	Upper	11/10/2003	NA	178.59	27.8	12.06	166.53
				2/19/2004	NA	178.59	27.48	11.90	166.69
				5/12/2004	NA	178.59	27.48	13.02	165.57
				3/29/2005	**NA**	**178.59**	**27.80**	**10.75**	**167.84**
				11/7/2005	**NA**	**178.59**	**27.48**	**11.81**	**166.78**
MW-46	2457093.157	1566687.292	Lower	11/10/2003	NA	178.37	48.85	11.5	166.87
				2/19/2004	NA	178.37	42.60	10.28	168.09
				5/12/2004	NA	178.37	42.60	13.33	165.04
				3/29/2005	**NA**	**178.37**	**48.85**	**10.74**	**167.63**
				11/7/2005	**NA**	**178.37**	**48.85**	**11.74**	**166.63**
MW-47	2456694.332	1566346.026	Upper	11/10/2003	NA	178.64	27.7	13.33	165.31
				2/19/2004	NA	178.64	27.40	11.66	166.98
				5/12/2004	NA	178.64	27.40	13.5	165.14
				3/29/2005	**NA**	**178.64**	**27.68**	**13.10**	**165.54**
				11/7/2005	**NA**	**178.64**	**27.68**	**14.71**	**163.93**
MW-48	2456695.743	1566357.797	Lower	11/10/2003	NA	178.43	52.62	12.96	165.47
				2/19/2004	NA	178.43	52.34	11.15	167.28
				5/12/2004	NA	178.43	52.34	12.9	165.53
				3/29/2005	**NA**	**178.43**	**52.60**	**12.42**	**166.01**
				11/7/2005	**NA**	**178.43**	**52.60**	**14.87**	**163.56**
MW-49	**2456783.419**	**1566335.694**	**PRB**	**3/29/2005**	**178.4**	**178.25**	**48.0**	**11.54**	**166.71**
				11/7/2005	**178.4**	**178.25**	**48.0**	**13.36**	**164.89**
MW-50	**2456792.017**	**1566344.920**	**PRB**	**3/29/2005**	**178.6**	**178.43**	**24.03**	**11.71**	**166.72**
				11/7/2005	**178.6**	**178.43**	**24.03**	**13.54**	**164.89**

TABLE 3-5

GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
MW-51	2456856.993	1566239.968	Upper	11/10/2003	NA	178.22	27.94	12.04	166.18
				2/19/2004	NA	178.22	27.60	9.50	168.72
				5/12/2004	NA	178.22	27.60	11.62	166.60
				3/29/2005	**NA**	**178.22**	**27.60**	**10.36**	**167.86**
				11/7/2005	**NA**	**178.22**	**27.60**	**13.34**	**164.88**
MW-52	2456863.3	1566229.207	Lower	11/10/2003	NA	178.07	46.4	12.21	165.86
				2/19/2004	NA	178.07	45.96	10.16	167.91
				5/12/2004	NA	178.07	45.96	11.96	166.11
				3/29/2005	**NA**	**178.07**	**46.25**	**10.77**	**167.30**
				11/7/2005	**NA**	**178.07**	**46.25**	**12.55**	**165.52**
MW-53	2457070.907	1566087.491	Upper	11/10/2003	NA	177.91	28	10.62	167.29
				2/19/2004	NA	177.91	27.66	7.63	170.28
				5/12/2004	NA	177.91	27.66	9.92	167.99
				3/29/2005	**NA**	**177.91**	**27.95**	**8.57**	**169.34**
				11/8/2005	**NA**	**177.91**	**27.95**	**10.76**	**167.15**
MW-54	2457012.081	1565991.994	Lower	11/10/2003	NA	178.45	45.11	11.04	167.41
				2/19/2004	NA	178.45	44.80	8.42	170.03
				5/12/2004	NA	178.45	44.80	10.70	167.75
				3/29/2005	**NA**	**178.45**	**45.10**	**9.40**	**169.05**
				11/7/2005	**NA**	**178.45**	**45.10**	**11.69**	**166.76**
RT-1	NA	NA	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	NA	185.18	22.38	13.08	172.10
				2/24/1993	NA	185.18	22.38	12.7	172.48
				5/25/1993	NA	185.18	22.38	12.02	173.16
				7/13/1993	NA	185.18	22.38	12.61	172.57
				11/30/1993	NA	185.18	22.38	13.88	171.30
				10/10/2000	NA	185.18	22.38	15.13	170.05
				10/26/2000	NA	185.18	22.38	15.25	169.93
				12/21/2000	NA	185.18	22.38	NA	NA
				11/13/2003	NA	185.18	22.38	12.96	172.22
RT-2	NA	NA	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	NA	184.56	22.05	13.03	171.53
				2/24/1993	NA	184.56	22.05	12.7	171.86
				5/25/1993	NA	184.56	22.05	12.06	172.50
				7/13/1993	NA	184.56	22.05	12.62	171.94
				11/30/1993	NA	184.56	22.05	13.83	170.73
				10/10/2000	NA	184.56	22.05	15.04	169.52
				10/26/2000	NA	184.56	22.05	15.13	169.43
				12/21/2000	NA	184.56	22.05	NA	NA
				11/12/2003	NA	184.56	22.05	12.89	171.67
RT-3	NA	NA	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	NA	184	22.04	12.27	171.73
				2/24/1993	NA	184	22.04	11.92	172.08
				5/25/1993	NA	184	22.04	11.2	172.80
				7/13/1993	NA	184	22.04	11.84	172.16
				11/30/1993	NA	184	22.04	13.07	170.93
				10/10/2000	NA	184	22.04	14.34	169.66
				10/26/2000	NA	184	22.04	14.43	169.57
				12/21/2000	NA	184	22.04	NA	NA
				11/13/2003	NA	184	22.04	12.18	171.82

TABLE 3-5

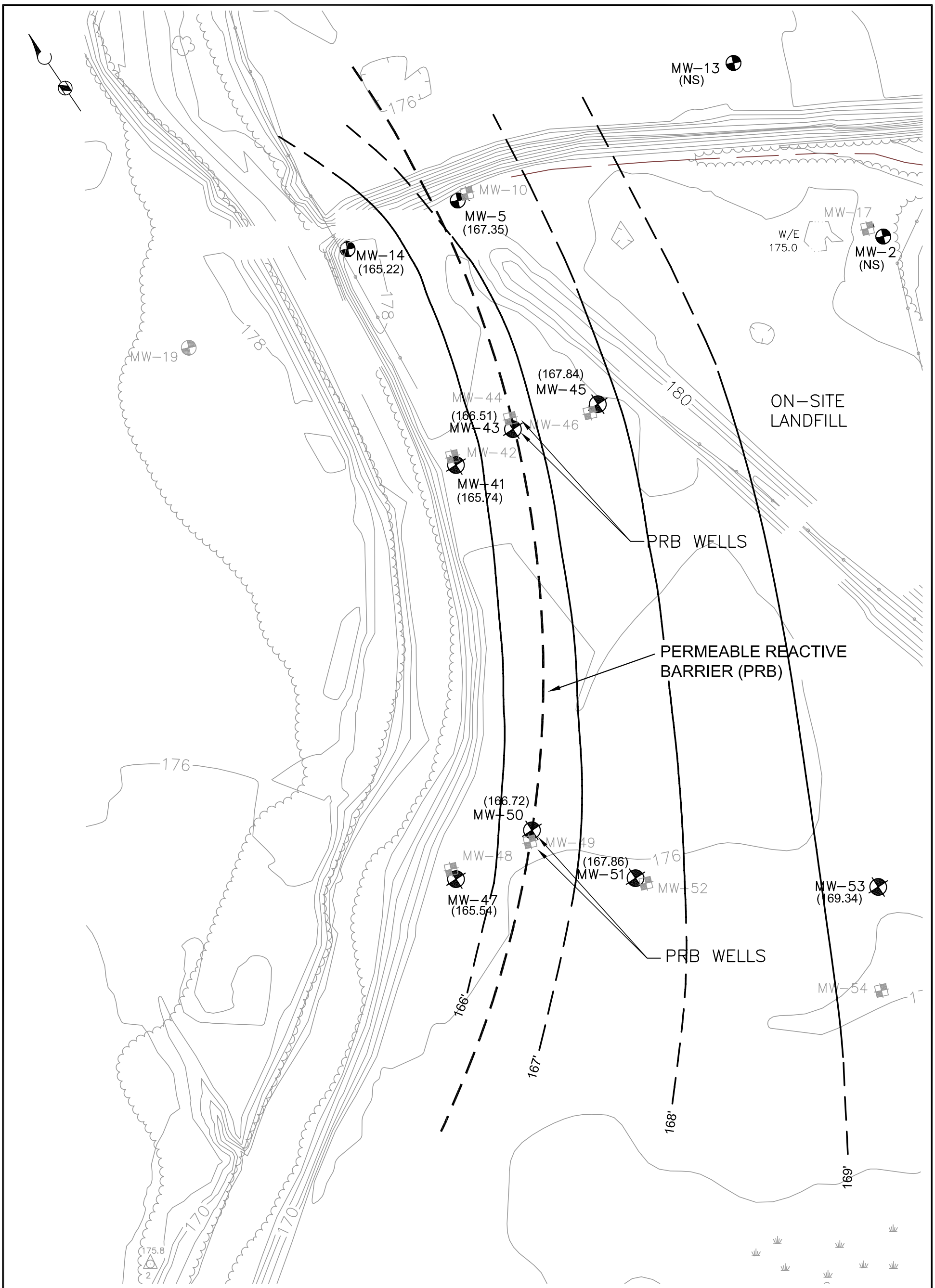
GROUNDWATER ELEVATIONS

Grenada Manufacturing Site
Grenada, Mississippi

Monitoring Well	Easting	Northing	Well Type	Date (m/d/y)	Ground Surface Elevation (ft msl)	Measuring Point Elevation (ft msl)	Total Depth (ft bTOC)	Depth to Water (ft bTOC)	Groundwater Elevation (ft msl)
RT-5	NA	NA	Upper	12/19/1991	NI	NI	NI	NI	NI
				1/22/1993	NA	184.17	19.6	12.82	171.35
				2/24/1993	NA	184.17	19.6	12.56	171.61
				5/25/1993	NA	184.17	19.6	NM	NM
				7/13/1993	NA	184.17	19.6	12.47	171.70
				11/30/1993	NA	184.17	19.6	13.57	170.60
				10/5/1998	NA	184.17	19.6	13.05	171.12
				10/10/2000	NA	184.17	19.6	14.71	169.46
				10/26/2000	NA	184.17	19.6	14.80	169.37
				12/21/2000	NA	184.17	19.6	NA	NA
				11/13/2003	NA	184.17	19.6	12.72	171.45

Footnotes:

ft bTOC	Feet below Top of Casing
ft msl	Feet above mean sea level
NA	Not Available
NM	Not Measured
NI	Not Installed
NAPL	Well contained either light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL)
PRB	Well installed within iron backfill of permeable reactive barrier (PRB)
*	Groundwater elevation may be skewed due to the presence of LNAPL.



LEGEND

NS	NOT SAMPLED
	UPPER MOST AQUIFER SHALLOW MONITORING WELL
	UPPER MOST AQUIFER DEEP MONITORING WELL
(167.15)	GROUNDWATER ELEVATION (FT MSL)
	GROUNDWATER ELEVATION CONTOUR DASH WHERE INFERRED

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3-1
MARCH 2005
POTENTIOMETRIC SURFACE MAP
UPPER MOST AQUIFER
SHALLOW WELLS
ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI
127939.004 2/06

BROWN AND CALDWELL Nashville, Tennessee

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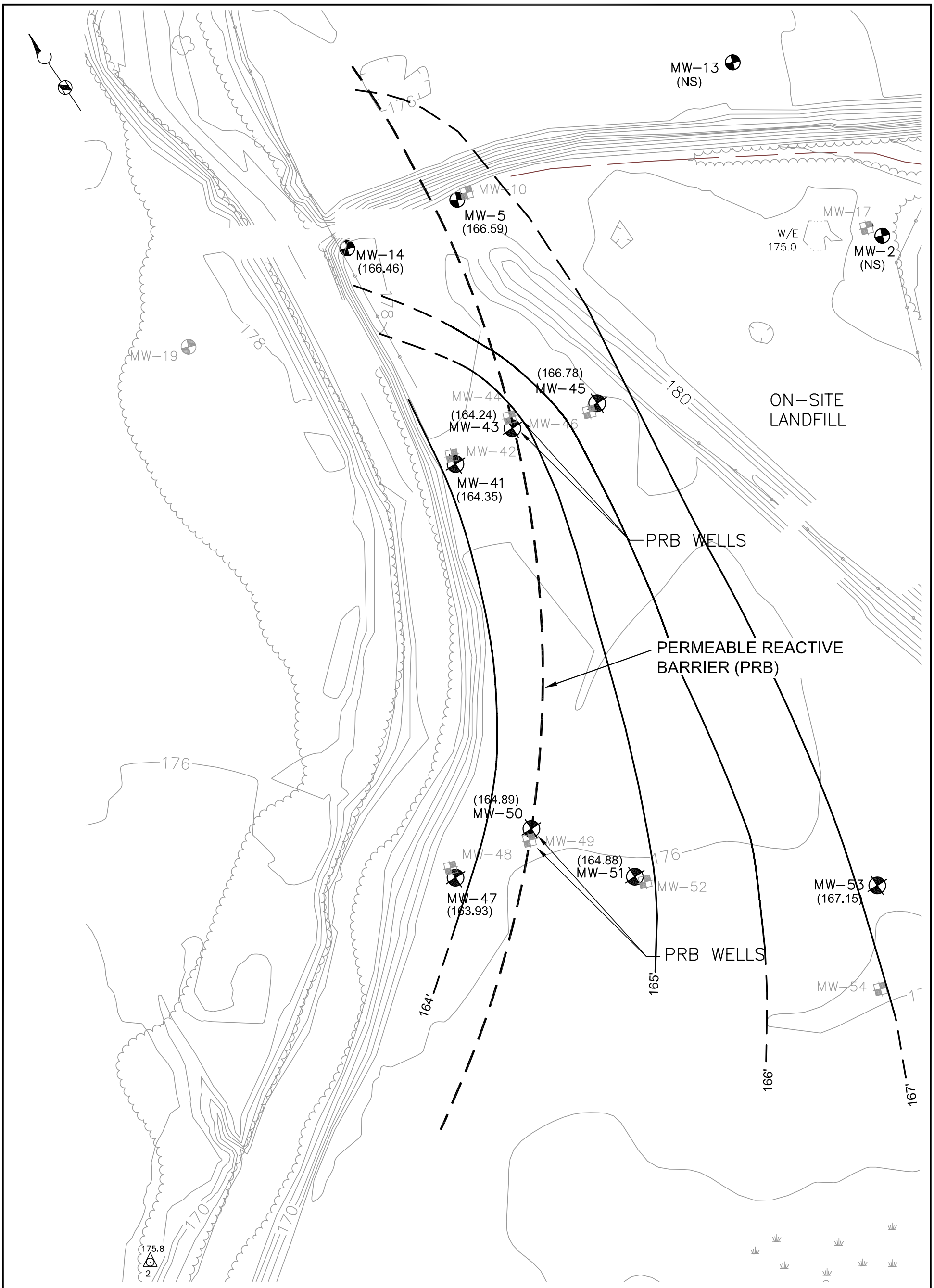

LEGEND

NS	NOT SAMPLED
⊕	UPPER MOST AQUIFER SHALLOW MONITORING WELL
▪	UPPER MOST AQUIFER DEEP MONITORING WELL
(167.15)	GROUNDWATER ELEVATION (FT MSL)
╲	GROUNDWATER ELEVATION CONTOUR DASH WHERE INFERRED

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3-2
NOVEMBER 2005
POTENTIOMETRIC SURFACE MAP
UPPER MOST AQUIFER
SHALLOW WELLS
ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI

127939.004 2/06

BROWN AND CALDWELL Nashville, Tennessee

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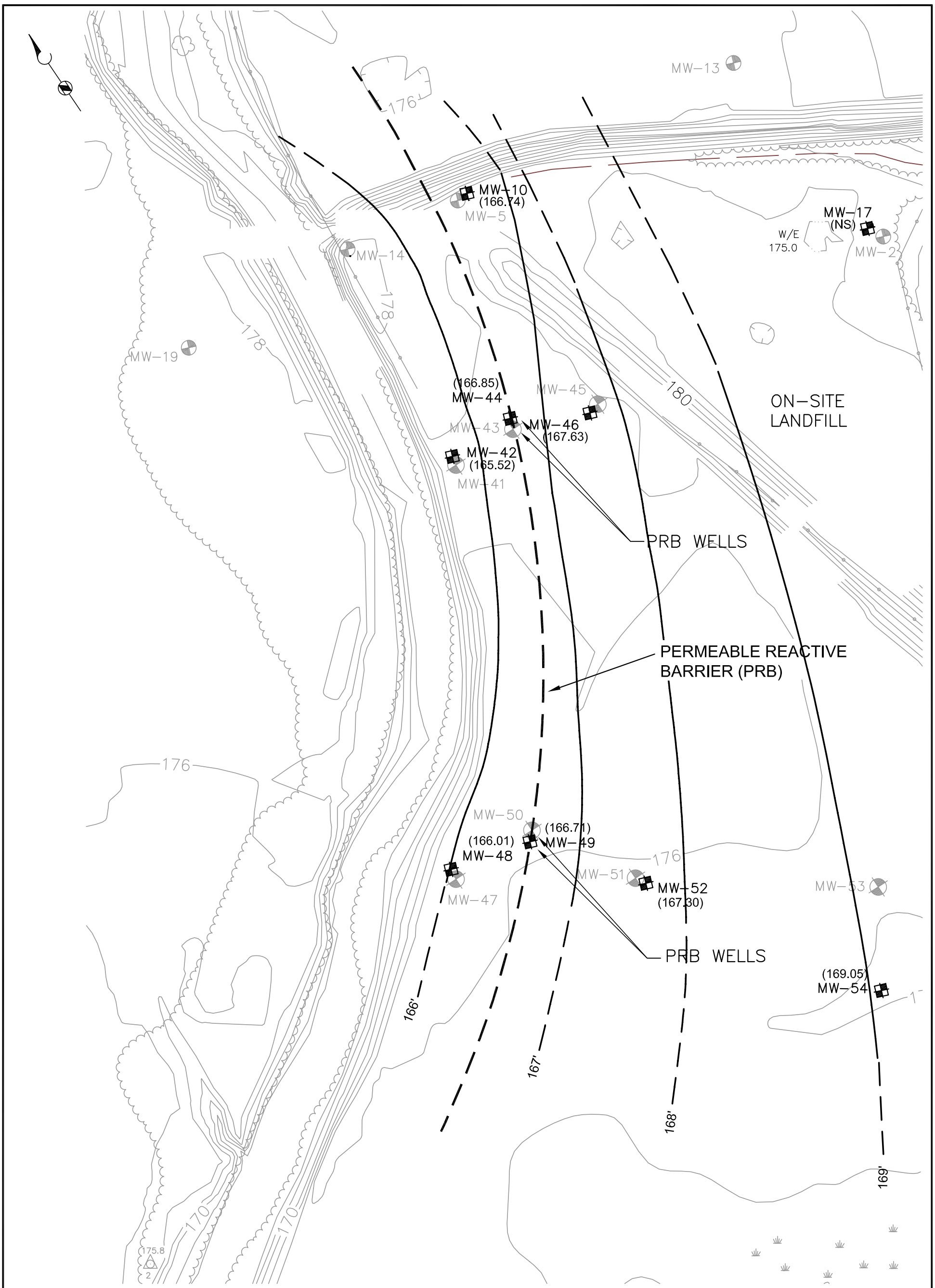

LEGEND

NS	NOT SAMPLED
	UPPER MOST AQUIFER SHALLOW MONITORING WELL
	UPPER MOST AQUIFER DEEP MONITORING WELL
(167.15)	GROUNDWATER ELEVATION (FT MSL)
	GROUNDWATER ELEVATION CONTOUR DASH WHERE INFERRED

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3-3
MARCH 2005
POTENTIOMETRIC SURFACE MAP
UPPER MOST AQUIFER
DEEP WELLS
ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI

127939.004 2/06

BROWN AND CALDWELL Nashville, Tennessee

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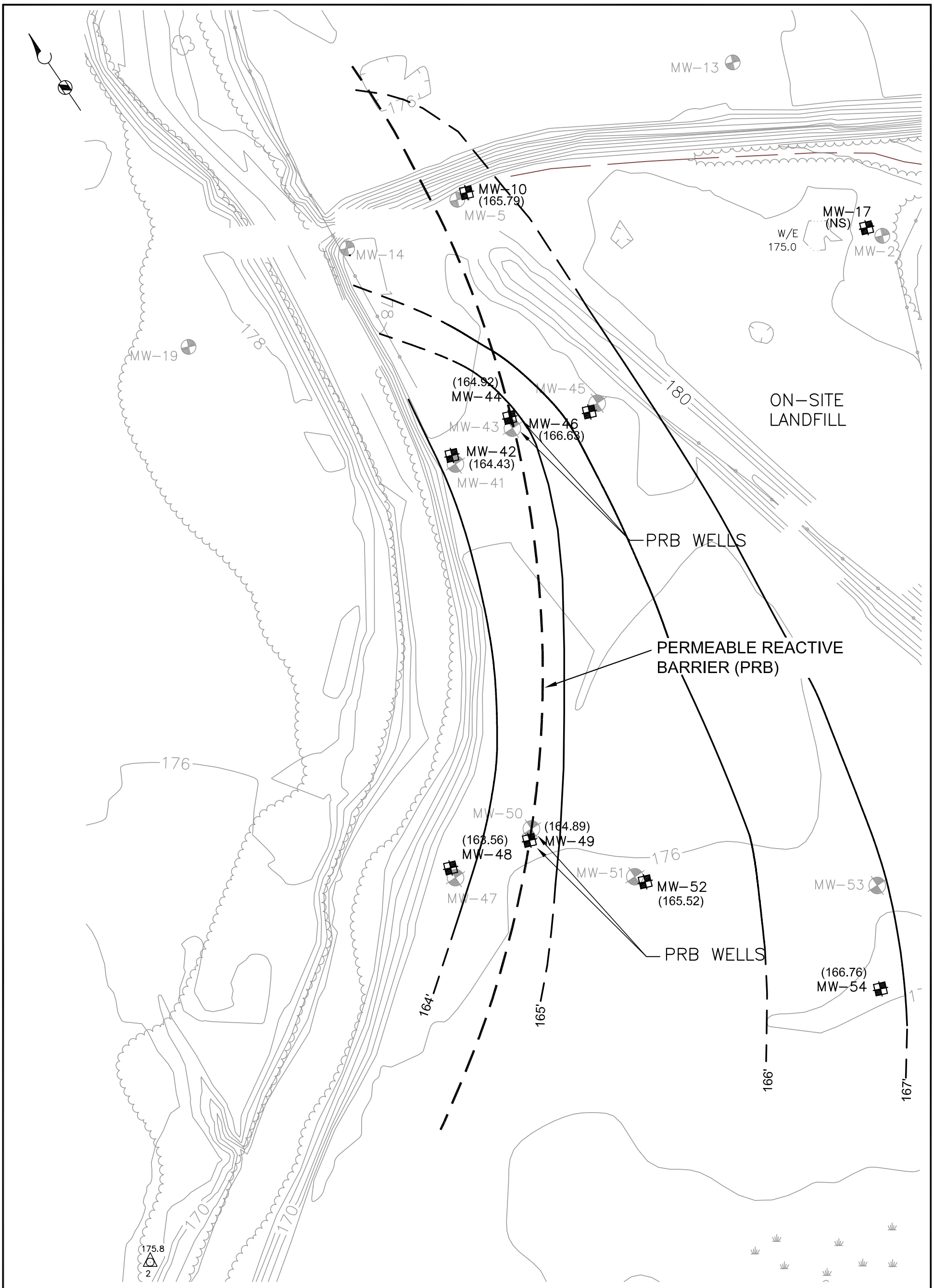

LEGEND

NS	NOT SAMPLED
	UPPER MOST AQUIFER SHALLOW MONITORING WELL
	UPPER MOST AQUIFER DEEP MONITORING WELL
(167.15)	GROUNDWATER ELEVATION (FT MSL)
	GROUNDWATER ELEVATION CONTOUR DASH WHERE INFERRED

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3-4
NOVEMBER 2005
POTENTIOMETRIC SURFACE MAP
UPPER MOST AQUIFER
DEEP WELLS
ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI

127939.004 2/06

BROWN AND CALDWELL Nashville, Tennessee

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Samples taken from the wells upgradient of the PRB (MW-5, MW-10, MW-45, MW-46, MW-53, and MW-54) indicate that VOC concentrations generally remained stable between the baseline event and the 2005 monitoring events. While a few of the concentrations have fluctuated, most of the values point toward stable groundwater concentrations.

At the conclusion of the PRB installation, four wells (MW-43, MW-44, MW-49, and MW-50) were placed inside four separate sections of the barrier to monitor the performance of the PRB. The concentrations of the samples collected from these wells were generally observed to be at or near the target performance standards. The groundwater concentrations observed near the downgradient edge of the PRB are at or near the targeted groundwater performance standards (USEPA MCLs) with the exception of monitoring well MW-49. Monitoring well MW-49 was installed to monitor the performance of the PRB within the lower portion of the Upper Aquifer toward the southern end of the PRB. During the March 2005 sampling event, TCE, cis-1,2-DCE, and vinyl chloride were observed to be 0.51 D mg/L, 0.72 D mg/l, and 0.05 D mg/L, respectively. During the November 2005 sampling event, cis-1,2-DCE (0.55 D mg/L) was the only parameter detected; this observed concentration of cis-1,2-DCE is above the target performance standard of 0.07 mg/L.

The estimated influent concentrations for TCE, cis-1,2-DCE, and vinyl chloride associated with the PRB panel for which MW-49 is monitoring are approximately 3 mg/L, 2 mg/L, and 0.15 mg/L, respectively. These influent parameters were used in the PRB degradation model. The model indicates that a cis-1,2-DCE concentration of 0.55 mg/L should be observed within the first 25 percent of the PRB thickness. This suggests that the monitoring well is screened towards the front of the PRB and the results are not representative of the total PRB performance at this location. During the installation of the PRB monitoring well, great care was taken to install the well as vertically as possible. The well was installed using rotosonic drilling methods which result in a borehole drift of a few inches at the depth for which monitoring well MW-49 was installed. The PRB width and depth at this location are approximately 2 feet and 55 feet, respectively. At this depth, there is the potential that the base of the well may have migrated, resulting in the well being installed near the front of the PRB.

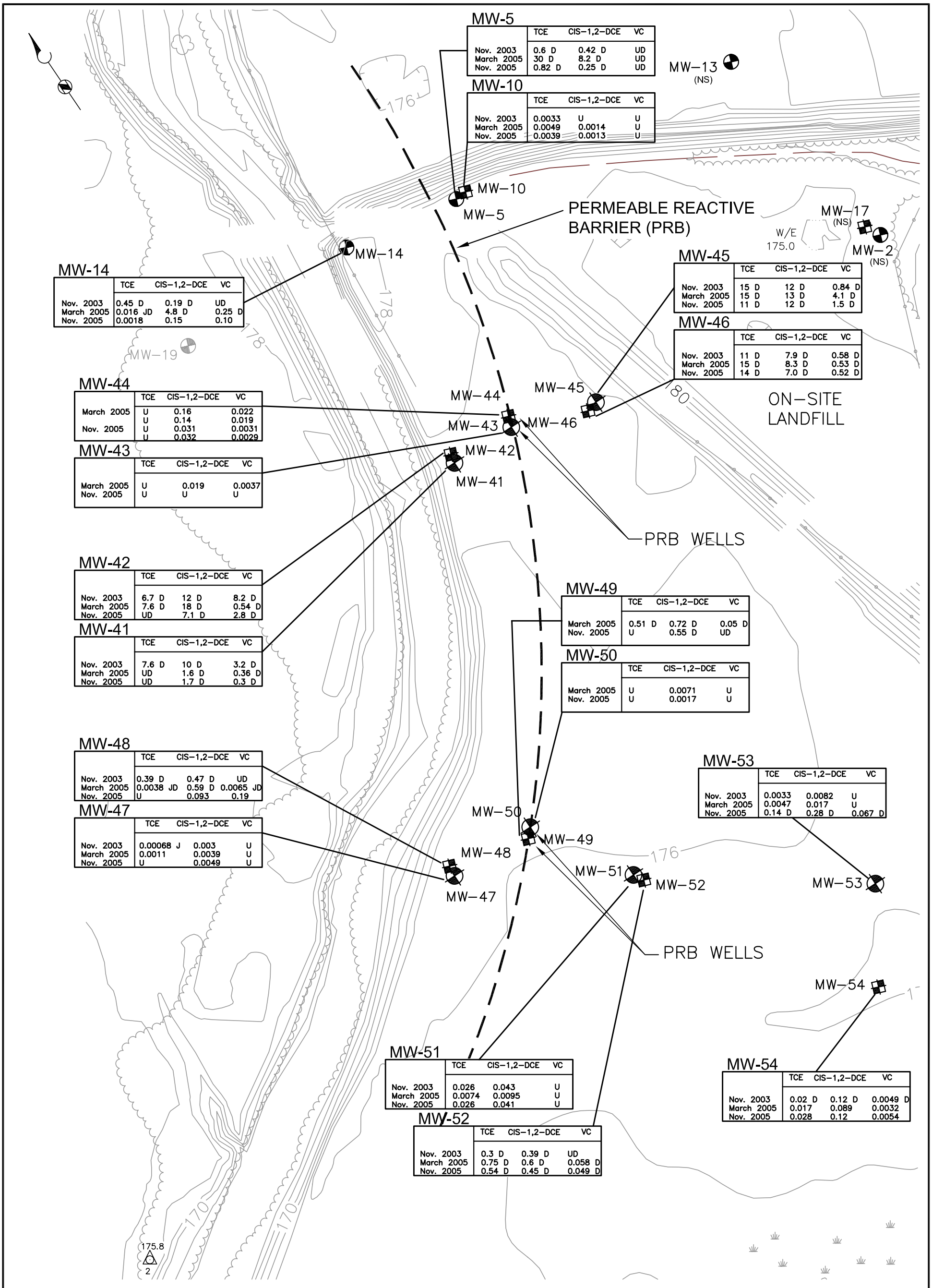
Additionally, the pH of the treated groundwater within MW-49 was observed to be 6.8 and 7.1 as compared to a pH of approximately 10 observed in PRB monitoring wells MW-43 and MW-44. The low pH suggests the possibility that the organic polymer slurry used during the trench construction may not have completely broken down, which could result in a reduction of the efficiency of the PRB at this location. If this is the case, the PRB efficiency will improve over time. Currently, cis-1,2-DCE concentrations have been observed to have dropped from 0.72 mg/L to 0.55 mg/L between the March 2005 and November 2005 sampling events.

Similar trends are evident from the VOC results from the monitoring wells in the Upper Aquifer downgradient of the PRB. As with TCE, the cis-1,2-DCE and vinyl chloride results for the samples collected from the wells downgradient of the PRB have mostly decreased since the baseline monitoring event. The data presented on Figure 3-5 provides an early indication that the PRB has been effective in decreasing the concentrations of the key constituents.

The concentrations of remaining site VOC constituents of interest [PCE, 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethene (1,1-DCE), toluene, 1,1,2-trichloroethane (1,1,2-TCA), and benzene] are summarized in Table 3-1. Most of the results for these constituents were below detection limits. Only PCE, benzene, and 1,1-DCE had detected concentrations above USEPA MCLs for the wells sampled in 2005.

3.1.3 SVOCs

Historical and current SVOC data are presented in Table 3-2. Bis(2-ethylhexyl)phthalate is the only SVOC constituent of interest. In accordance with the PMP, only groundwater samples collected during the November 2005 event were analyzed for bis(2-ethylhexyl)phthalate; however, the compound was not detected in any of the samples.



MW-5

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.6 D	0.42 D	UD
March 2005	30 D	8.2 D	UD
Nov. 2005	0.82 D	0.25 D	UD

MW-10

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.0033	U	U
March 2005	0.0049	0.0014	U
Nov. 2005	0.0039	0.0013	U

MW-14

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.45 D	0.19 D	UD
March 2005	0.016 JD	4.8 D	0.25 D
Nov. 2005	0.0018	0.15	0.10

MW-45

	TCE	CIS-1,2-DCE	VC
Nov. 2003	15 D	12 D	0.84 D
March 2005	15 D	13 D	4.1 D
Nov. 2005	11 D	12 D	1.5 D

MW-46

	TCE	CIS-1,2-DCE	VC
Nov. 2003	11 D	7.9 D	0.58 D
March 2005	15 D	8.3 D	0.53 D
Nov. 2005	14 D	7.0 D	0.52 D

MW-44

	TCE	CIS-1,2-DCE	VC
March 2005	U	0.16	0.022
	U	0.14	0.019
Nov. 2005	U	0.031	0.0031
	U	0.032	0.0029

MW-43

	TCE	CIS-1,2-DCE	VC
March 2005	U	0.019	0.0037
Nov. 2005	U	U	U

MW-42

	TCE	CIS-1,2-DCE	VC
Nov. 2003	6.7 D	12 D	8.2 D
March 2005	7.6 D	18 D	0.54 D
Nov. 2005	UD	7.1 D	2.8 D

MW-41

	TCE	CIS-1,2-DCE	VC
Nov. 2003	7.6 D	10 D	3.2 D
March 2005	UD	1.6 D	0.36 D
Nov. 2005	UD	1.7 D	0.3 D

MW-49

	TCE	CIS-1,2-DCE	VC
March 2005	0.51 D	0.72 D	0.05 D
Nov. 2005	U	0.55 D	UD

MW-50

	TCE	CIS-1,2-DCE	VC
March 2005	U	0.0071	U
Nov. 2005	U	0.0017	U

MW-48

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.39 D	0.47 D	UD
March 2005	0.0038 JD	0.59 D	0.0065 JD
Nov. 2005	U	0.093	0.19

MW-47

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.00068 J	0.003	U
March 2005	0.0011	0.0039	U
Nov. 2005	U	0.0049	U

MW-53

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.0033	0.0082	U
March 2005	0.0047	0.017	U
Nov. 2005	0.14 D	0.28 D	0.067 D

MW-51

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.026	0.043	U
March 2005	0.0074	0.0095	U
Nov. 2005	0.026	0.041	U

MW-52

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.3 D	0.39 D	UD
March 2005	0.75 D	0.6 D	0.058 D
Nov. 2005	0.54 D	0.45 D	0.049 D

MW-54

	TCE	CIS-1,2-DCE	VC
Nov. 2003	0.02 D	0.12 D	0.0049 D
March 2005	0.017	0.089	0.0032
Nov. 2005	0.028	0.12	0.0054

LEGEND

TCE	TRICHLOROETHENE
CIS-1,2-DCE	CIS-1,2-DICHLOROETHENE
VC	VINYL CHLORIDE
NS	NOT SAMPLED
U	BELOW LAB DETECTION LIMIT

UPPER MOST AQUIFER SHALLOW MONITORING WELL

UPPER MOST AQUIFER DEEP MONITORING WELL

ALL RESULTS REPORTED AS MILLIGRAMS PER LITER (mg/L).

100 0 100 200
SCALE FEET

SOURCE: MAP PREPARED BY ALMON ASSOCIATES, 1993 (UPDATED 2005). WELL LOCATIONS SHOWN ARE APPROXIMATE.

FIGURE 3-5

2005 TCE, CIS-1,2-DCE, AND VINYL CHLORIDE CONCENTRATIONS

ARVINMERITOR, INC
PRB SITE
GRENADA, MISSISSIPPI

127939.004 3/06

BROWN AND CALDWELL Nashville, Tennessee

May 12, 2006 - 11:18am cad

P:\PROJ\127939 - Grenada SW-GW\CAD\127939-03.dwg

3.1.4 Inorganics

Historical and current inorganic data are presented in Table 3-3. Total chromium, hexavalent chromium, arsenic, and lead were the primary inorganic constituents of interest. Concentrations of total chromium in site monitoring wells have shown an overall reduction, and total chromium was not detected in most of the samples collected. Of the detected total chromium concentrations, only samples collected from MW-45, located upgradient of the PRB, exceeded the USEPA MCL in 2005. In the past, hexavalent chromium has been sporadically detected within the upper and lower portion of the Upper Aquifer. The hexavalent chromium concentrations from the MW-45 samples represented the only concentrations above the risk-based action level in 2005.

Since zero valent iron PRBs have an ability to remediate chromium compounds, it is important to note the initial trends apparent from the 2005 monitoring events. The results of the samples collected from wells upgradient of the PRB seem to be stable compared to the 2003 baseline results and are mostly below the detection limit. The samples collected from the four wells inside the PRB had chromium concentrations lower than the concentrations from the upgradient wells. Except for small detections in MW-14 and MW-47 for total chromium in November 2005, the total and hexavalent chromium concentrations from the wells located downgradient of the PRB have either decreased or stayed below detection limits since the baseline sampling event in 2003. These trends provide an early indication that the PRB has been effective in decreasing the concentrations of these key compounds.

Arsenic concentrations have decreased significantly across the site. MW-14, MW-41, MW-47, and MW-48 were the only monitoring wells which had detections exceeding the USEPA MCL and/or the site risk-based action level.

Lead concentrations have also decreased significantly across the site. While most of the sample results were below detection limits, the sample collected from MW-14 had the only lead result above the USEPA MCL.

3.1.5 QA/QC Results

The QA/QC data collected for the VOC groundwater samples during the 2005 sampling events were satisfactory. Duplicate results for March and November indicated that analyses were within acceptable control limits. There were no VOCs detected in the trip blanks, equipment blanks, or method blanks during the 2005 events.

The QA/QC data collected for the inorganic groundwater samples during the 2005 sampling events were also satisfactory. Duplicate results for March and November indicated that analyses were within acceptable control limits.

3.2 EVALUATION OF BIODEGRADATION IN GROUNDWATER

The extent to which constituent mass has been reduced as a result of natural attenuation has been evaluated using the primary evidence, which is the groundwater VOC data, and the secondary evidence, which is the groundwater bioparameter data. The results of this evaluation are discussed below.

3.2.1 Primary Evidence from VOC Data

The daughter products of TCE (cis-1,2-DCE, vinyl chloride, and ethene) are present at the site and demonstrate that there is evidence of reductive dechlorination. Daughter products, especially cis-1,2-DCE, are found across most of the plume. In the upper portion of the plume, the concentration of cis-1,2-DCE exceeds the concentration of its parent compound (TCE) in monitoring wells MW-14, MW-41, MW-43, MW-47, MW-50, MW-51, and MW-53. The concentration of cis-1,2-DCE exceeds the TCE concentration in lower portion monitoring wells MW-42, MW-44, MW-48, MW-49, and MW-54. The high ratio of daughter product to parent compound is consistent with the bioparameter data (see below) and is a strong indication of reductive dechlorination. Vinyl chloride, another degradation product of TCE, was detected at several wells within both the upper and lower portions of the Upper Aquifer (see Figure 3-5). Ethene is only sampled during biennial site-wide sampling events. The next biennial event will occur in Spring 2006.

3.2.2 Secondary Evidence from Bioparameter Data

In addition to the primary evidence, secondary evidence supporting the occurrence of natural attenuation is provided by the bioparameter data (see Table 3-4) in the form of high or low concentrations of certain electron acceptors, indicators of degradation (in addition to the VOC daughter products discussed earlier), nutrients, and geochemical parameters. These data provide indirect evidence of the process. The bioparameter data also provide evidence of whether groundwater conditions are favorable for the continued occurrence of reductive dechlorination. Due to the nature of the 2005 groundwater sampling events, only field bioparameters were collected.

The following results from the 2005 sampling events indicate that anaerobic degradation continues to occur at the site:

- Lower dissolved oxygen (DO) concentrations were observed at the same wells where lower VOC concentrations were observed. The current DO levels are supportive of anaerobic degradation.

- Groundwater temperatures ranged from 17.5 to 22.3°C. These temperature ranges are consistent with other sites where reductive dechlorination has been confirmed. Microbial processes generally increase with increasing temperatures.

- pH values ranged from 5.2 to 7.6 at the site. It is generally reported that pH values between 5 and 9 are adequate for reductive dechlorination. The pH measured at the wells inside the PRB (MW-43, MW-44, MW, 49, and MW-50) ranged from 6.8 to 10.87, typically higher than the other pH values measured around the site.

During construction of the PRB, a biodegradable slurry consisting of guar gum was used to support the trench while it was backfilled. To ensure that the guar gum slurry had fully degraded following construction of the PRB in February 2005, samples were collected from the wells installed inside the PRB (MW-43, MW-44, MW-49, and MW-50) and analyzed for

total organic carbon (TOC). The amount of organic carbon in the PRB provides a direct correlation to the amount of slurry still present in the PRB. TOC samples were collected in March and November of 2005. Table 3-4 shows the TOC concentrations detected during the 2005 monitoring events, as well as the concentrations from the 2003 baseline monitoring event. The baseline sampling results show TOC concentrations below the detection limit of 1.0 mg/L up to 2.4 mg/L in wells immediately upgradient and downgradient, respectively, of the PRB. The following sampling events found concentrations between 2.7 and 140 mg/L in March 2005 and between 1.9 and 15 mg/L in November 2005. These results indicate that the TOC concentrations have decreased since construction and are returning to their baseline concentrations.

3.3 SURFACE WATER RESULTS

The surface water sample analytical results from the quarterly monitoring performed in CY2005, as well as data from previous sampling events, are summarized in Tables 3-6 (VOCs) and 3-7 (inorganics). As mentioned in Section 1.0, samples were only collected during the first two quarterly events in 2005. The results are presented in order from upstream to downstream sample locations. A brief discussion of the data is presented below.

3.3.1 VOCs

TCE concentrations generally have decreased in samples from locations SW-12, SW-17, and SW-19 since the 2003 baseline sampling event. TCE concentrations from sample location SW-9 appear to remain stable since the baseline sampling event.

Total 1,2-DCE was analyzed during the 1993 sampling event, but is not on the current parameter list. Rather, cis-1,2-DCE has replaced total 1,2-DCE on the parameter list beginning with the 2003 event. Overall, cis-1,2-DCE concentrations have generally decreased at locations SW-12 and SW-19 since the second quarter of 2004, while the samples from locations SW-9 and SW-17 generally have remained stable since 2003.

TABLE 3-6

RESULTS FOR VOCS DETECTED IN SURFACE WATER

Grenada Manufacturing Site
Grenada, Mississippi

Sample Location	Sample Date	Tetrachloro-ethene (mg/L)	Trichloro-ethene (mg/L)	cis-1,2-Dichloro-ethene (mg/L)	Vinyl chloride (mg/L)	1,2-Dichloro-ethene (Total) (mg/L)	Toluene (mg/L)	Xylene (total) (mg/L)
SW-22A	5/18/1993	0.001 U	0.001 U	NA	0.002 U	0.001 U	0.001 U	0.001 U
SW-22B	5/18/1993	0.001 U	0.001 U	NA	0.002 U	0.001 U	0.001 U	0.001 U
SW-22C	5/18/1993	0.001 U	0.001 U	NA	0.002 U	0.001 U	0.001 U	0.001 U
SW-22	11/14/2003	U	0.001 U	0.001 U	0.002 U	NA	0.001 U	NA
SW-22 DUP	11/14/2003	U	0.001 U	0.001 U	0.002 U	NA	0.001 U	NA
SW-22	2/18/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-22	5/11/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	NA
SW-22	8/4/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	NA
SW-22	11/29/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	NA
SW-22	**3/2/2005**	**0.001 U**	**0.001 U**	**0.001 U**	**0.002 U**	**NA**	**0.001 U**	**NA**
SW-22	**5/16/2005**	**0.0003 U**	**0.0002 U**	**0.0003 U**	**0.0005 U**	**NA**	**0.0002 U**	**0.0002 U**
SW-12	2/23/1993	0.001 U	0.099	NA	0.002 U	0.039	0.0017 J	0.0011 J
SW-12	11/14/2003	0.001 U	0.022	0.033	0.0018 J	NA	0.001 U	NA
SW-12	2/18/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-12 DUP	2/18/2004	0.001 U	0.001 U	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-12	5/11/2004	0.00042 J	0.077	0.11	0.0047	NA	0.001 U	NA
SW-12 DUP	5/11/2004	0.001 U	0.058	0.095	0.0028	NA	0.001 U	NA
SW-12	8/4/2004	0.001 U	0.061	0.099	0.0035	NA	0.001 U	NA
SW-12	11/29/2004	0.001 U	0.0018	0.0052	0.002 U	NA	0.001 U	NA
SW-12	**3/2/2005**	**0.001 U**	**0.004**	**0.013**	**0.00064 J**	**NA**	**0.001 U**	**NA**
SW-12	**5/16/2005**	**0.0003 U**	**0.00089 J**	**0.0017**	**0.0005 U**	**NA**	**0.0002 U**	**0.0002 U**
SW-19A	5/18/1993	0.001 U	0.55 D	NA	0.013 J	0.13	0.001 U	0.001 U
SW-19B	5/18/1993	0.001 U	0.5 D	NA	0.014 J	0.13	0.001 U	0.001 U
SW-19C	5/18/1993	0.001 U	0.57 D	NA	0.014 J	0.14	0.001 U	0.001 U
SW-19	11/14/2003	0.001 U	0.079	0.059	0.0033	NA	0.001 U	NA
SW-19	2/18/2004	0.001 U	0.094	0.11	0.015	NA	0.001 U	0.001 U
SW-19	5/11/2004	0.001 U	0.049	0.062	0.0058	NA	0.001 U	NA
SW-19	8/4/2004	0.00056 J	0.28 D	0.3 D	0.036	NA	0.001 U	NA
SW-19 DUP	8/4/2004	0.00061 J	0.27 D	0.31 D	0.035	NA	0.001 U	NA
SW-19	11/29/2004	0.001 U	0.011	0.0077	0.002 U	NA	0.001 U	NA
SW-19	**3/2/2005**	**0.001 U**	**0.0085**	**0.015**	**0.00089 J**	**NA**	**0.001 U**	**NA**
SW-19	**5/16/2005**	**0.0003 U**	**0.00088 J**	**0.0032**	**0.0005 U**	**NA**	**0.0004 J**	**0.0002 U**
SW-9	2/23/1993	0.001 U	0.28 D	NA	0.002 U	0.057	0.001 U	0.002 U
SW-9 DUP	2/23/1993	0.001 U	0.29 D	NA	0.002 U	0.056	0.001 U	0.002 U
SW-9	11/14/2003	0.002 UD	0.12 D	0.083 D	0.0076 D	NA	0.002 UD	NA
SW-9	2/18/2004	0.001 U	0.051	0.034	0.004	NA	0.001 U	0.001 U
SW-9	5/11/2004	0.00031 J	0.11	0.07	0.0058	NA	0.001 U	NA
SW-9	8/4/2004	0.001 U	0.15	0.11	0.0092	NA	0.001 U	NA
SW-9	11/29/2004	0.001 U	0.059	0.036	0.0046	NA	0.001 U	NA
SW-9 DUP	11/29/2004	0.001 U	0.06	0.037	0.0043	NA	0.001 U	NA
SW-9	**3/2/2005**	**0.001 U**	**0.034**	**0.045**	**0.0034**	**NA**	**0.001 U**	**NA**
SW-9 DUP	**3/2/2005**	**0.001 U**	**0.033**	**0.042**	**0.0036**	**NA**	**0.001 U**	**NA**
SW-9	**5/16/2005**	**0.0003 U**	**0.016**	**0.038**	**0.0068**	**NA**	**0.0002 U**	**0.0002 U**
SW-17A	5/18/1993	0.001 U	0.16 D	NA	0.002 U	0.059	0.001 U	0.001 U
SW-17B	5/18/1993	0.001 U	0.17 D	NA	0.002 U	0.055	0.001 U	0.001 U
SW-17C	5/18/1993	0.001 U	0.17 D	NA	0.002 U	0.058	0.001 U	0.001 U
SW-17	11/14/2003	0.001 U	0.096	0.065	0.0053	NA	0.001 U	NA
SW-17	2/18/2004	0.001 U	0.05	0.032	0.0039	NA	0.001 U	0.001 U
SW-17	5/11/2004	0.00035 J	0.1	0.068	0.0072	NA	0.001 U	NA
SW-17	8/4/2004	0.001 U	0.12	0.08	0.0063	NA	0.001 U	NA
SW-17	11/29/2004	0.001 U	0.048	0.028	0.0035	NA	0.001 U	NA
SW-17	**3/2/2005**	**0.001 U**	**0.022**	**0.031**	**0.0024**	**NA**	**0.001 U**	**NA**
SW-17	**5/16/2005**	**0.0003 U**	**0.0086**	**0.023**	**0.0033**	**NA**	**0.0002 U**	**0.0002 U**
SW-17 DUP	**5/16/2005**	**0.0003 U**	**0.0094**	**0.023**	**0.0038**	**NA**	**0.0002 U**	**0.0002 U**

Notes:
U = Not Detected
D = Sample was diluted
J = Sample was estimated
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed

TABLE 3-6

RESULTS FOR VOCS DETECTED IN SURFACE WATER

Grenada Manufacturing Site
Grenada, Mississippi

Sample Location	Sample Date	1,2-Dichloro-ethane (mg/L)	1,1-Dichloro-ethene (mg/L)	trans-1,2-Dichloro-ethene (mg/L)	1,1,2-Trichloro-ethane (mg/L)	Benzene (mg/L)
SW-22A	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-22B	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-22C	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-22	11/14/2003	U	NA	NA	U	U
SW-22 DUP	11/14/2003	U	NA	NA	U	U
SW-22	2/18/2004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
SW-22	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-22	8/4/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-22	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-22	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-22	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**
SW-12	2/23/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-12	11/14/2003	0.001 U	NA	NA	0.001 U	0.001 U
SW-12	2/18/2004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
SW-12 DUP	2/18/2004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
SW-12	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-12 DUP	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-12	8/4/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-12	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-12	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-12	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**
SW-19A	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-19B	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-19C	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-19	11/14/2003	0.001 U	NA	NA	0.001 U	0.001 U
SW-19	2/18/2004	0.001 U	0.001 U	0.00051 J	0.001 U	0.001 U
SW-19	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-19	8/4/2004	0.001 U	0.0008 J	NA	0.001 U	0.001 U
SW-19 DUP	8/4/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-19	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-19	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-19	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**
SW-9	2/23/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-9 DUP	2/23/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-9	11/14/2003	0.002 UD	0.002 UD	NA	0.002 UD	0.002 UD
SW-9	2/18/2004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
SW-9	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-9	8/4/2004	0.001 U	0.00042 J	NA	0.001 U	0.001 U
SW-9	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-9 DUP	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-9	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-9 DUP	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-9	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**
SW-17A	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-17B	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-17C	5/18/1993	0.001 U	0.002 U	NA	0.001 U	0.001 U
SW-17	11/14/2003	0.001 U	NA	NA	0.001 U	0.001 U
SW-17	2/18/2004	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
SW-17	5/11/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-17	8/4/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-17	11/29/2004	0.001 U	0.001 U	NA	0.001 U	0.001 U
SW-17	**3/2/2005**	**0.001 U**	**0.001 U**	**NA**	**0.001 U**	**0.001 U**
SW-17	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**
SW-17 DUP	**5/16/2005**	**0.0002 U**	**0.0003 U**	**0.0003 U**	**0.0002 U**	**0.0002 U**

Notes:
U = Not Detected
D = Sample was diluted
J = Sample was estimated
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed

TABLE 3-7

RESULTS FOR INORGANICS DETECTED IN SURFACE WATER

Grenada Manufacturing Site
Grenada, Mississippi

Sample Location	Sample Date	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
Mississippi and EPA Aquatic Life Criteria[a]					
Acute		0.34 (III)	--	0.016	0.03
Chronic		0.15 (III)	--	0.011	0.0018
Mississippi Surface Water Human Health Criteria[b]		0.024 (Total)	--	1.47	--
SW-22A	5/18/1993	0.005 U	0.0037 X	0.025 U	0.0053 X
SW-22B	5/18/1993	0.005 U	0.0042 X	0.025 U	0.0036 X
SW-22C	5/18/1993	0.005 U	0.0056 X	0.025 U	0.005 X
SW-22	11/14/2003	0.005 U	0.005 U	0.05 U	0.005 U
SW-22 DUP	11/14/2003	0.005 U	0.005 U	0.025 U	0.005 U
SW-22	2/18/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-22	5/11/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-22	8/4/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-22	11/29/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-22	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-22	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**
SW-12	2/23/1993	0.005 U	0.431	0.164	0.0039
SW-12	11/14/2003	0.005 U	0.033	0.025 U	0.005 U
SW-12	2/18/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-12 DUP	2/18/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-12	5/11/2004	0.005 U	0.43	0.025 U	0.033
SW-12 DUP	5/11/2004	0.005 U	0.18	0.025 U	0.015
SW-12	8/4/2004	0.005 U	0.018	0.025 U	0.003 U
SW-12	11/29/2004	0.005 U	0.013	0.025 U	0.003 U
SW-12	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-12	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**
SW-19A	5/18/1993	0.005 U	0.119	0.129	0.0033 X
SW-19B	5/18/1993	0.005 U	0.126	0.115	0.005 X
SW-19C	5/18/1993	0.005 U	0.13	0.116	0.003 X
SW-19	11/14/2003	0.005 U	0.0064	0.025 U	0.005 U
SW-19	2/18/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-19	5/11/2004	0.005 U	0.018	0.025 U	0.003 U
SW-19	8/4/2004	0.005 U	0.019	0.025 U	0.003 U
SW-19 DUP	8/4/2004	0.005 U	0.018	0.025 U	0.003 U
SW-19	11/29/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-19	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-19	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**

TABLE 3-7

RESULTS FOR INORGANICS DETECTED IN SURFACE WATER

Grenada Manufacturing Site
Grenada, Mississippi

Sample Location	Sample Date	Arsenic (mg/L)	Chromium (total) (mg/L)	Hexavalent Chromium (mg/L)	Lead (mg/L)
Mississippi and EPA Aquatic Life Criteria[a]					
Acute		0.34 (III)	--	0.016	0.03
Chronic		0.15 (III)	--	0.011	0.0018
Mississippi Surface Water Human Health Criteria[b]		0.024 (Total)	--	1.47	--
SW-9	2/23/1993	0.005 U	0.169	0.032	0.0068
SW-9 DUP	2/23/1993	0.005 U	0.175	0.025 U	0.0058
SW-9	11/14/2003	0.005 U	0.0094	0.025 U	0.005 U
SW-9	2/18/2004	0.005 U	0.0054	0.025 U	0.003 U
SW-9	5/11/2004	0.005 U	0.0076	0.025 U	0.003 U
SW-9	8/4/2004	0.005 U	0.0055	0.025 U	0.003 U
SW-9	11/29/2004	0.005 U	0.0058	0.025 U	0.003 U
SW-9 DUP	11/29/2004	0.005 U	0.005	0.025 U	0.003 U
SW-9	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-9 DUP	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-9	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**
SW-17A	5/18/1993	0.005 U	0.084	0.035	0.004 X
SW-17B	5/18/1993	0.005 U	0.083	0.026	0.0054 X
SW-17C	5/18/1993	0.005 U	0.085	0.025 U	0.003 U
SW-17	11/14/2003	0.005 U	0.0095	0.025 U	0.005 U
SW-17	2/18/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-17	5/11/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-17	8/4/2004	0.005 U	0.0079	0.025 U	0.003 U
SW-17	11/29/2004	0.005 U	0.005 U	0.025 U	0.003 U
SW-17	**3/2/2005**	**0.005 U**	**0.005 U**	**0.025 U**	**0.003 U**
SW-17	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**
SW-17 DUP	**5/16/2005**	**0.005 U**	**0.005 U**	**0.010 U**	**0.003 U**

Notes:
U = Not Detected
D = Sample was diluted
J = Sample was estimated
X = Result associated with a laboratory contaminant
NA = Not Available or Not Analyzed
[a]Based on a hardness concentration of 50 mg/L as $CaCO_3$
[b]For human consumption of organisms only.
Values obtained from: *Mississippi Commission on Environmental Quality Regulation WPC-2: Water Quality Criteria for Intrastate, Interstate, and Coastal Waters*

Vinyl chloride concentrations from locations SW-9, SW-12, and SW-17 have remained rather stable since the 2003 baseline event. The concentrations measured from location SW-19 have generally decreased during the last few sampling events.

1,2-DCA, 1,1,2-TCA, and benzene have historically not been detected in any surface water samples from the site. In addition, toluene, xylene, PCE, 1,1-DCE, and trans-1,2-DCE have typically not been detected. The exceptions are very low-level detections (0.0017 mg/L or lower) for each constituent. The upstream location, SW-22, has consistently been below detection limits for all VOCs.

Surface water quality criteria are not available for the monitored constituents from the Mississippi Department of Environmental Quality (MDEQ).

3.3.2 Inorganics

As indicated in Table 3-7, there have been no detections of arsenic in any of these samples, including those collected in 2005. In addition, there have been no detections of hexavalent chromium or lead since the original sampling events in 1993. The lone exception to this is the low-level detection of lead (0.033/0.015 mg/L) in SW-12 during the May 2004 sampling event. Total chromium was not detected at any of the sampling locations in 2005. In general, total chromium concentrations have been undetected or detected at low concentrations (less than 0.02 mg/L) in all samples except SW-12 since the 1993 sampling events. Total chromium concentrations have generally remained stable since the 2003 baseline event until 2005. There were no metals detections in the upstream location (SW-22).

As shown on Table 3-7, the MDEQ provides criteria for some of the inorganic constituents monitored during the surface water sampling, Aquatic Life Criteria and Human Health Criteria. These criteria are only available for arsenic, hexavalent chromium, and lead. The MDEQ has issued levels for trivalent chromium in surface water; however, since the surface water samples are not directly analyzed for trivalent chromium, those criteria are not included in Table 3-7. The analytical data in Table 3-7 show that the human health criteria

were not exceeded in any samples. The data also show that the acute aquatic life criteria have not been exceeded, except at one location during one sampling event. In May 2004, lead in sample SW-12 was detected above the Mississippi and EPA Aquatic Life Criteria. This appears to be an isolated incident since there have been no detections since February 1993 and both subsequent samples collected from that location show results below detection limits. A comparison of the data against the chronic criteria shows that the level has been exceeded in the past, but only once since 1993 (lead at SW-12 in May 2004).

3.3.3 QA/QC Results

The QA\QC data collected for the VOC samples during the 2005 sampling events were satisfactory. As shown in Table 3-6, the results of the duplicate samples were very similar to the results of their corresponding samples. None of the constituents identified in Table 3-6 appeared in any of the method blanks or trip blanks analyzed along with the water samples.

The QA\QC data collected for inorganic analysis during the 2005 sampling events were satisfactory. As shown in Table 3-7, the results of the duplicate samples were very similar to the results of their corresponding samples.

4.0 SUMMARY

Based upon the results of the 2005 semi-annual groundwater monitoring activities at the Grenada Manufacturing site in Grenada, Mississippi, BC offers the following conclusions:

- Samples collected from the groundwater wells upgradient of the PRB indicate that VOC concentrations generally remained stable between the baseline event in 2003 and the 2005 monitoring events. The concentrations of the samples collected from the four wells installed inside the PRB generally are much lower than the concentrations detected in the corresponding wells immediately upgradient. Concentrations of the samples collected from the wells downgradient of the PRB have mostly decreased since the baseline monitoring event. These results provide an initial indication that, while the concentrations upgradient of the PRB remain stable, the PRB has been effective at reducing concentrations of the contaminants of interest downgradient.

- Review of groundwater modeling data across the thickness of the PRB indicates that based on the VOC concentrations within MW-49, the monitoring well may be screened towards the front of the PRB and the results are not representative of the total PRB performance at this location. It is suggested that the organic polymer slurry used during PRB construction may have not completely broken down; however, it is expected that PRB efficiency will improve over time within the location of MW-49.

- PRBs have been shown to have the ability to decrease chromium concentrations in addition to VOCs. Based on the results from the 2005 sampling events, the chromium concentrations upgradient of the PRB appear to remain stable. The samples collected from the four wells inside the PRB had chromium concentrations lower than the concentrations in the upgradient wells. Except for small detections in MW-14 and MW-47 for total chromium in November 2005, the total and hexavalent chromium results from the wells located downgradient of the PRB have either decreased or stayed below detection limits since the baseline sampling event in 2003.

- Groundwater samples collected during the November 2005 event were analyzed for bis(2-ethylhexyl)phthalate; however, the compound was not detected in any of the samples.

- In 12 of the 17 monitoring wells sampled in 2005, cis-1,2-DCE, a daughter product of TCE, was found in higher concentrations than TCE. Vinyl chloride, another degradation product of TCE, was detected in several wells within the upper and lower portions of the Upper Aquifer. This provides primary evidence that biodegradation is occurring. The field bioparameter results collected in 2005 generally supported this conclusion.

- TCE, cis-1,2-DCE, and vinyl chloride results from the surface water sampling generally continue to remain stable or decrease in concentration. Concentrations of arsenic, hexavalent chromium, and lead remained stable with concentrations below detection limits during 2005. For the first time since surface water sampling began at the site, the total chromium concentrations fell below the detection limits at all locations during both 2005 sampling events.

APPENDIX A

FIELD SAMPLE DATA FORMS

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-10
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.
Comments: Collected EB@MW-10 at 15:30

Date: 3/30/2005 Time: 16:55
Weather Conditions: Thunderstorms
Air Temperature: 68

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 50.1 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 14.06 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.88

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 tygon

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☑ FieldCleaned

Purge Start Time 15:40 Purge End Time 16:45 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	19.8	6.6	235	clear, slight sulfur odor
1	20.9	5.9	233	clear, less odor
2	19.6	5.8	257	clear
3	19.8	5.8	259	clear

DO	0.4
Fe	2.9
Mn	0.2
CO2	65
H2S	0
Eh	-110

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.8 pH 5.8 Spec. Cond. 259

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols. [signature]

for Steve Paterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-14
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 15:50
Weather Conditions: Thunderstorms
Air Temperature: 68 F

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.17 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 16.22 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 1.79

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☐ Stainless Steel ☐ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☐ Nylon ☐ Other

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 15:20 Purge End Time 15:40 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	19.4	7.05	437	clear
1	19.5	7.23	387	clear
2	19.3	7.26	362	clear
3	19.3	7.28	369	clear

DO	0.15
Fe	1.5
Mn	0.8
CO2	35
H2S	0.1
Eh	-16

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.3 pH 7.28 Spec. Cond. 369

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-41
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 15:05
Weather Conditions: thunderstorms
Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.7 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.5 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.32

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 tygon

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 14:35 Purge End Time 15:00 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	21.5	6.9	350	Clear/sulfide odor
1	20.4	6.8	346	Clear/sulfide odor
2	19.3	6.8	331	Clear/sulfide odor
3	19.6	6.7	333	Clear/sulfide odor

DO	0.05
Fe	4
Mn	0.4
CO2	25
H2S	>5
Eh	NA

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.6 pH 6.7 Spec. Cond. 333

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Paterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-42
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 13:30
Weather Conditions: thunderstorms
Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 50.45 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 14.06 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.94

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 12:15 Purge End Time 13:25 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	20.4	6	425	clear, TCE odor
1	20.3	5.9	482	clear, sulfur odor
2	20.1	6	502	clear, sulfur odor
3	20.2	5.9	520	clear, sulfur odor

DO	0.2
Fe	22 (10x)
Mn	0.3
CO2	95
H2S	>25 (25 dil)
Eh	-199

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☑ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other: TCE odor

Field Determinations: Temperature: 20.2 pH 5.9 Spec. Cond. 520

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-43
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 15:35
Weather Conditions: NA
Air Temperature: NA

Comments: First two samples were from the top of the column. The second two were from the bottom because of high pH. Found same pH @ bottom. Volume count recorded as gallons. Developed well 27 gallons total.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 24.35 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 12.66 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 1.91

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☑ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☑ FieldCleaned

Purge Start Time 15:10 Purge End Time 15:30 Volumes Purged 9

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	19.2	10.5	852	black, turbid
9	18.3	10.7	792	clear
9	18.3	10.4	813	clear
18	18.4	10.6	769	clear

DO	0.2
Fe	130
Mn	0
CO2	NA
H2S	0
Eh	-660

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☑ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.4 pH 10.64 Spec. Cond. 769

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-44
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 10:10
Weather Conditions: Thunderstorms
Air Temperature: 68

Comments: Well devlopment (27 gallons). Colected duplicate at 14:30. Volume count recorded in gallons

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 46.1 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 12.05 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.56

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☑ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☑ FieldCleaned

Purge Start Time 9:10 Purge End Time 9:30 Volumes Purged 5

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18.6	9.22	356	brown/orange/turbid
9	18.6	10.72	403	black/turbid
18	18.6	10.84	438	gray/turbid
27	18.6	10.87	426	light gray/turbid

DO	0.2
Fe	180
Mn	0
CO2	NA
H2S	0
Eh	-790

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☑ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☐ Clear ☑ Turbid ☑ Color light grey

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.6 pH 10.87 Spec. Cond. 426

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-45
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 15:50
Weather Conditions: NA
Air Temperature: NA

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☐ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.8 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 10.75 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.78

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 15:05 Purge End Time 15:45 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18.9	5.7	594	clear
1	18.5	5.7	477	clear
2	18.3	5.7	470	clear
3	18.4	5.8	462	clear

DO	1.5
Fe	0
Mn	0
CO2	80
H2S	0
Eh	-15

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.4 pH 5.8 Spec. Cond. 462

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Peterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-46
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 16:15
Weather Conditions: NA
Air Temperature: NA

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 48.85 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 10.74 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 6.22

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 15:10 Purge End Time 16:10 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	20.4	6.1	420	clear
1	18.1	5.9	446	clear
2	18	6	436	clear

DO	0.2
Fe	3
Mn	0.3
CO2	45
H2S	0
Eh	-59

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18 pH 6 Spec. Cond. 436

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols. Will Tanner

for Steve Paterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-47
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 13:10
Weather Conditions: Thunderstorms
Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.68 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.1 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.38

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☐ Stainless Steel ☐ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 12:30 Purge End Time 13:00 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18.8	7.23	314	clear
1	18.6	7.1	325	clear
2	18.8	7.11	327	clear
3	18.8	7.12	328	clear

DO	0
Fe	55
Mn	0.3
CO2	81
H2S	0
Eh	91

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.8 pH 7.12 Spec. Cond. 328

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-48

Sample No

Project: PRB Wall, G.W. Sampling

CLient: Arvin Meritor

Job No: 126467.003

Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 12:10

Weather Conditions: Thunderstorms

Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 52.6 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 12.42 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 6.56

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☐ Stainless Steel ☐ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 10:50 Purge End Time 12:00 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	17.7	6.35	164	clear
1	19.2	7.11	322	clear
2	19.7	7.2	296	clear
3	19.8	7.22	310	clear

DO	0
Fe	60
Mn	0.4
CO2	89.1
H2S	0
Eh	-87

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☐ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.8 pH 7.22 Spec. Cond. 310

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Paterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-49
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.
Comments: Well development (total 27 gallons)

Date: 3/29/2005 Time: 10:30
Weather Conditions: NA
Air Temperature: NA

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 48 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 16.54 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.13

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☑ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☑ FieldCleaned

Purge Start Time 10:00 Purge End Time 10:20 Volumes Purged 5

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18.3	6.5	322	Black/Turbid
18	17.9	6.8	190	Black/Turbid
27	17.5	6.8	228	Black/Turbid

DO	0
Fe	190
Mn	0.4
CO2	40
H2S	0
Eh	-150

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☑ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☐ Clear ☑ Turbid ☐ Color Black

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 17.5 pH 6.8 Spec. Cond. 228

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Paterbaugh
Signature

2/21/06
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-50
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 13:10
Weather Conditions: NA
Air Temperature: NA

Comments: Well development (total 27 gallons). Volume count recorded in gallons.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 24.03 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 11.71 Well Bottom Clean ☐ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.01

Purge Data:

Method: ☐ Bladder ☐ Peristaltic ☐ Bailer ☑ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☐ Other

Was The Well Evacuated? ☐

Purging Equipment: ☐ Dedicated ☐ Prepared Off-Site ☑ FieldCleaned

Purge Start Time 12:30 Purge End Time 13:00 Volumes Purged 13.5

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18.3	7.78	225	Black/Turbid
9	18.8	7.78	217	Black/Turbid
18	18	7.82	194	Black/Turbid
27	18.4	7.8	199	Black/Turbid

DO	0
Fe	110
Mn	0.3
CO2	35
H2S	0
Eh	-107

Sampling Data:

Method ☐ Bladder Pump ☐ Peristaltic Pump ☑ Bailer ☑ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☐ Other

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial _Chemical Data:

Appearance: ☐ Clear ☑ Turbid ☐ Color Black

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.4 pH 7.8 Spec. Cond. 199

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Paterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-51
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 13:45
Weather Conditions: Partly Cloudy
Air Temperature: NA

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.94 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 10.36 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.87

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 13:05 Purge End Time 13:40 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	19.1	5.3	82	Clear
1	19.1	5.2	72	Clear
2	18.6	5.2	74	Clear
3	18.5	5.2	72	Clear

DO	0.9
Fe	0.9
Mn	0
CO2	45
H2S	0
Eh	20

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☑ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.5 pH 5.2 Spec. Cond. 72

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Poterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-52
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/29/2005 Time: 14:15
Weather Conditions: NA
Air Temperature: NA

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 46.25 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 10.77 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.79

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 13:00 Purge End Time 14:05 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	19.5	5.8	139	clear
1	18.1	5.3	143	clear
2	18.5	5.2	142	clear
3	18.3	5.2	141	clear

DO	1.5
Fe	0.7
Mn	0
CO2	45
H2S	0
Eh	72

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.3 pH 5.2 Spec. Cond. 141

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Puterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-53
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 10:50
Weather Conditions: Thunderstorms
Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.95 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 8.57 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 3.16

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 10:10 Purge End Time 10:40 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	18	5.6	130	clear
1	16.6	5.3	134	clear
2	16.8	5.3	131	clear
3	NA	5.4	128	clear

DO	0.8
Fe	0
Mn	0
CO2	55
H2S	0
Eh	10

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: NA pH 5.4 Spec. Cond. 128

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

for Steve Peterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-54
Sample No

Project: PRB Wall, G.W. Sampling
CLient: Arvin Meritor
Job No: 126467.003
Personnel: Sam W. / Steve P.

Date: 3/30/2005 Time: 10:00
Weather Conditions: thunderstorms
Air Temperature: 68

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 45.11 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 9.4 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.83

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other tygon 24

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 8:45 Purge End Time 9:45 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	16.4	6.5	143	clear
1	17.5	5.7	136	clear
2	17.8	5.5	133	clear
3	18.1	5.6	134	clear

DO	0.4
Fe	0.1
Mn	0
CO2	45
H2S	0
Eh	-45

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 18.1 pH 5.6 Spec. Cond. 134

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Will Rice for Steve Puterbaugh — Signature

2/21/06 — Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-5
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/9/2005 Time: 11:10
Weather Conditions: Cloudy
Air Temperature: 80s F

Comments: Purged 11/8/2005 and sampled following day based on Hex. Chrom holding time.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 22.35 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 14.09 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 1.35

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 16:16 Purge End Time 16:43 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond	Color
0	22.1	7.3	243	Clear/Sweet Odor
1	21.6	6.3	216	Clear
2	22.2	6.2	222	Clear
3	22.3	6.1	223	Clear

DO	3
Fe	0
Mn	0
CO2	100
H2S	0
Eh	215

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 22.3 pH 6.1 Spec. Cond. 223

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/23/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-42
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams
Comments: Collected EB @ MW-42 @ 13:25

Date: 11/9/2005 Time: 15:15
Weather Conditions: Cloudy
Air Temperature: 80s F

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 50.45 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 15.15 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.76

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 13:55 Purge End Time 15:04 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	21.5	6.7	621	Clear/Sulfur Odor
1	20	6.5	733	Clear/Sulfur Odor
2	0	0	0	NA
3	20.3	6.6	732	Clear/S. Sulfur Odor

DO	0
Fe	10
Mn	0.5
CO2	110
H2S	5
Eh	-81

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 20.3 pH 6.6 Spec. Cond. 732

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/23/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-43
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/10/2005 Time: 12:00
Weather Conditions: Clear
Air Temperature: 55

Comments: VOC's collected from diffusion sampler (MW-43 DIFF @ 11:35). Well vols. count in gallons.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 24.35 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.9 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 1.71

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 11:45 Purge End Time Volumes Purged 1.76

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	17.8	10.5	611	Clear
1	19.5	10.4	596	Clear
2	20.4	10.4	583	Clear
3	19.8	10.4	576	Clear

DO	0.2
Fe	0
Mn	0
CO2	Sat
H2S	0
Eh	-421

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.8 pH 10.4 Spec. Cond. 576

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11-29-05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-44

Sample No

Project: PRB Wall GW Sampling

CLient: Arvin Meritor

Job No: 127939.003

Personnel: S. Everman/S. Williams

Date: 11/10/2005 Time: 10:55

Weather Conditions: Clear

Air Temperature: 55 F

Comments: Collected VOC's form Diffusion Sampler, (MW-44 DIFF @ 9:20). Well vol. count in gallons..

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 46.1 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.4 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.34

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 9:55 Purge End Time 10:43 Volumes Purged 0.66

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	17.5	10.4	418	Clear
1				Na
2	16.7	10.7	432	Clear/Small Effer.
3.5	16.7	10.8	447	Clear/Small Effer.

DO	0.2
Fe	0
Mn	0
CO2	Sat
H2S	0
Eh	-475

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 16.7 pH 10.8 Spec. Cond. 447

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/29/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-45
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/9/2005 Time: 13:15
Weather Conditions: Cloudy
Air Temperature: 67 F

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☐ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.8 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 11.78 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.61

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 12:55 Purge End Time 13:08 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	21.6	6	460	Clear
1	19.9	6	460	Clear
2	19.6	6	460	Clear
3	19.8	6	449	Clear

DO	1
Fe	0
Mn	0.2
CO2	100
H2S	0
Eh	

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.8 pH 6 Spec. Cond. 449

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/29/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-46

Sample No

Project: PRB Wall GW Sampling

CLient: Arvin Meritor

Job No: 127939.003

Personnel: S. Everman/S. Williams

Date: 11/9/2005 Time: 15:00

Weather Conditions: Cloudy

Air Temperature: 67 F

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 48.85 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 11.72 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 6.06

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 13:40 Purge End Time 14:56 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	22.1	6	458	Clear
1	21.2	6.1	458	Clear
2	21	6.1	459	Clear/TCE Odor
3	19.6	6.1	462	Clear/TCE Odor

DO	0.3
Fe	3
Mn	0.3
CO2	95
H2S	0
Eh	65

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.6 pH 6.1 Spec. Cond. 462

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/28/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-47

Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/9/2005 Time: 10:00
Weather Conditions: Cloudy
Air Temperature: 80s F

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.68 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 14.71 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.12

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 9:32 Purge End Time 9:55 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	20.4	6.6	174	Clear
1	20.2	6.8	147	Clear
2	19.9	6.8	146	Clear
3	20	6.8	147	Clear

DO	0
Fe	1
Mn	0.2
CO2	30
H2S	0
Eh	-77

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial _Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 20 pH 6.8 Spec. Cond. 147

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Sarah Everman
Signature

11/23/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-48

Sample No

Project: PRB Wall GW Sampling

CLient: Arvin Meritor

Job No: 127939.003

Personnel: S. Everman/S. Williams

Comments:

Date: 11/9/2005 Time: 10:20

Weather Conditions: Cloudy

Air Temperature: 80s F

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 52.6 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 14.87 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 6.16

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 8:09 Purge End Time 9:19 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	20.4	6.6	424	Clear
1	19.3	7	287	Clear
2	20.1	6.8	210	Clear
3	19.3	6.8	282	Clear

DO	0
Fe	2.1
Mn	0.1
CO2	35
H2S	0
Eh	-85

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.6 pH 6.8 Spec. Cond. 282

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/23/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-49
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/10/2005 Time: 12:55
Weather Conditions: Sunny
Air Temperature: 60s

Comments: VOC's sampled from Diffusion samplert (MW-49 DIFF @ 11:45). Well vol. count in gallons.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 48 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.36 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.65

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Was The Well Evacuated? ☐

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 12:26 Purge End Time Volumes Purged 0.22

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	22.2	8.1	147	Clear
0.5	19.6	7.5	171	Clear
1	19.5	7.4	173	Clear/Odor
1.25	0	7.1	167	Clear

DO	0
Fe	0.8
Mn	0
CO2	20
H2S	0
Eh	-259

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 19.5 pH 7.1 Spec. Cond. 167

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature: [signature] Date: 11/23/05

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-50
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/10/2005 Time: 11:20
Weather Conditions: Sunny
Air Temperature: 60s F

Comments: VOC's sampled from Diffusion sampler (MW-50 DIFF @ 10:40). Well vol. count in gallons.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 24.03 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 13.54 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 1.71

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 10:53 Purge End Time Volumes Purged 0.87

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	17.8	8.7	69	Clear
0.5	20.4	9.1	51	Clear
1	20.1	9.5	45	Clear
1.5	20.5	9.5	49	Clear

DO	1
Fe	0
Mn	0
CO2	5
H2S	0
Eh	-269

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tydon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 20.5 pH 9.5 Spec. Cond. 49

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature Date 11/23/05

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-51

Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S Williams

Date: 11/9/2005 Time: 10:45
Weather Conditions: Cloudy
Air Temperature: 67 F

Comments:

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.94 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 12.21 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.57

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 10:15 Purge End Time 10:35 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	22.6	5.7	72	Clear
1	21.1	5.3	79	Cloudy/Clear
2	20.5	5.4	81	Clear
3	20.1	5.4	80	Clear

DO	1
Fe	0
Mn	0
CO2	70
H2S	0
Eh	92

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 20.1 pH 5.4 Spec. Cond. 80

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11-29-05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-52
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams
Comments: Collected Mw-Dupe

Date: 11/9/2005 Time: 10:00
Weather Conditions: Cloudy
Air Temperature: 67 F

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 46.25 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 12.38 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 5.53

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 8:30 Purge End Time Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	21.5	5.6	153	Clear
1	19.3	5.7	155	Clear
2	20.5	5.7	153	Clear
3	21	5.8	151	Clear

DO	0.2
Fe	0.1
Mn	0
CO2	65
H2S	0
Eh	105

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 21 pH 5.8 Spec. Cond 151

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/29/05
Date

BROWN AND CALDWELL

GROUNDWATER SAMPLING FIELD DATA SHEET

Location No MW-53
Sample No

Project: PRB Wall GW Sampling
CLient: Arvin Meritor
Job No: 127939.003
Personnel: S. Everman/S. Williams

Date: 11/9/2005 Time: 12:00
Weather Conditions: Sunny
Air Temperature: 85 F

Comments: Purged on 11/8/2005 and smapled following day due to holding time of Hex. Chrom.

WELL DATA:

Casing Diameter (in.): 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon

Intake Diameter (in.) 2 ☐ Stainless Steel ☐ Steel ☑ PVC ☐ Teflon ☐ Open Rock

Bottom Depth (ft.) 27.95 Datum Top of Pro. Casing ☐ Datum Top Of Well Casing ☑ Other ☐

Static Water Level (ft.): 10.76 Well Bottom Clean ☑ Well In Good Condition ☑

Volume of Water in Well (gal.): 2.81

Purge Data:

Method: ☐ Bladder ☑ Peristaltic ☐ Bailer ☐ Submersible

Was The Well Evacuated? ☐

Materials: Pump/Bailer: ☐ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☐ Nylon ☑ Other 24 Tygon

Purging Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ FieldCleaned

Purge Start Time 15:30 Purge End Time 16:05 Volumes Purged 3

Time Series Data:

Volume	Temperature	pH	Spec. Cond.	Color
0	24.7	5.1	65	Clear
1	19.8	5.5	107	Clear
2	19.4	5.5	109	Clear
3	19.4	5.5	109	Clear

DO	0.4
Fe	0
Mn	0
CO2	75
H2S	0
Eh	113

Sampling Data:

Method ☐ Bladder Pump ☑ Peristaltic Pump ☑ Bailer ☐ Submersible Pump

Materials: Pump/Bailer: ☑ Teflon ☑ Stainless Steel ☑ PVC ☐ Other

Materials: Tubing/Rope: ☐ Teflon ☑ Polyethylene ☑ Nylon ☑ Other 24 Tygon

Sampling Equipment: ☑ Dedicated ☐ Prepared Off-Site ☐ Field Cleaned

Metals Sample Field Filtered: ☐ Filtering Method:

Physcial Chemical Data:

Appearance: ☑ Clear ☐ Turbid ☐ Color

☐ Contains Immiscible Liquid Other:

Field Determinations: Temperature: 21.4 pH 5.5 Spec. Cond. 103

I Certify that this sample was collected and handled in accordance with applicable regulatory and corporate protocols.

Signature

11/29/05
Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-12

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jimmy How/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek adjacent to MW-14

Date: 03/02/2005 Time: 15:20

Weather Conditions: NA

Air Temperature: NA

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 10.0 pH: 7.40 Spec. Cond. 376

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Christopher Ward — Signature

3/18/05 — Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-17

Sample No.

Project: Surface Water Sampling

Client: Arvin Meritor

Job No.: 127939.002

Personnel: Jimmy How/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek near bridge to road

Date: 03/02/2005 Time: 14:10

Weather Conditions: NA

Air Temperature: NA

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 11.5 pH: 6.99 Spec. Cond. 166

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Christopher Ward — Signature

3/18/05 — Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-19

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jimmy How/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek adjacent to MW-41

Date: 03/02/2005 Time: 15:00

Weather Conditions: NA

Air Temperature: NA

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 10.1 pH: 7.22 Spec. Cond. 168

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Christopher Ward — Signature

3/18/05 — Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-22

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jimmy How/Chris Ward

Physical Description of Sample Location:
(If required) Riverdale Creek near rail road tracks

Date: 03/02/2005 Time: 15:30

Weather Conditions: NA

Air Temperature: NA

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 8.9 pH: 7.22 Spec. Cond. 166

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Christopher Ward — Signature

3/18/05 — Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-17

Sample No.

Project: Surface Water Sampling

Client: Arvin Meritor

Job No.: 127939.002

Personnel: Jackie Thomas/Chris Ward

Physical Description of Sample Location:
(If required) Riverdale Creek near bridge to road

Date: 05/16/2005 Time: 15:15

Weather Conditions: Partly Cloudy

Air Temperature: 75

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 21.6 pH: 7.21 Spec. Cond. 186

Other(s):

REMARKS:

Collected SW-DUP.

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Jackie Thomas
Signature

2/16/06
Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-9

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jackie Thomas/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek past deer field

Date: 05/16/2005 Time: 16:15

Weather Conditions: Partly Cloudy

Air Temperature: 75

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 21.0 pH: 7.36 Spec. Cond. 198

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Jackie Thomas
Signature

2/16/06
Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-19

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jackie Thomas/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek adjacent to MW-41

Date: 05/16/2005 Time: 16:40

Weather Conditions: Partly Cloudy

Air Temperature: 75

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 21.2 pH: 7.71 Spec. Cond. 185

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Jackie Thomas
Signature

2/16/04
Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-12

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jackie Thomas/Chris Ward

Physical Description of Sample Location:

(If required) Riverdale Creek adjacent to MW-14

Date: 05/16/2005 Time: 16:48

Weather Conditions: Partly Cloudy

Air Temperature: 75

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 23.3 pH: 9.01 Spec. Cond. 249

Other(s):

REMARKS:

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Jackie Thomas
Signature

2/14/06
Date

BROWN AND CALDWELL

ENVIRONMENTAL SAMPLE FIELD DATA SHEET

Location No. SW-22

Sample No.

Project: Surface Water Sampling

Client: ArvinMeritor

Job No.: 127939.002

Personnel: Jackie Thomas/Chris Ward

Physical Description of Sample Location:
(If required) Riverdale Creek near rail road tracks

Date: 05/16/2005 Time: 17:25

Weather Conditions: Partly Cloudy

Air Temperature: 75

Type of Sample: ☒ Water ☐ Soil ☐ Bottom Sediment

Solid:

Other:

PREPARATION FOR SAMPLING:

Has equipment been dedicated to sample location? ☒

Has equipment been prepared off site prior to sampling? ☐

Has equipment been cleaned and reused in field? ☐

Cleaning Method:

Other Data:

COLLECTION OF SAMPLE:

Equipment Utilized: Laboratory prepared sampling Jars

Method:

Sample Type ☐ Composite ☒ Grab ☐ Other:

Other Data:

FIELD MEASUREMENT DATA:

Appearance: Clear

Odor: ☐ Yes ☒ No

Field Determinations:

Temperature: 22.3 pH: 7.67 Spec. Cond. 169

Other(s):

REMARKS:

Collected MS/MSD.

I CERTIFY THAT THIS SAMPLE WAS COLLECTED AND HANDLED IN ACCORDANCE WITH APPLICABLE REGULATORY AND CORPORATE PROTOCOLS. THESE DATA ARE COMPILED FROM FIELD RECORDS IN A BOUND FIELD BOOK.

Jackie Thomas
Signature

2/16/06
Date

APPENDIX B

LABORATORY ANALYTICAL REPORTS
AND
CHAIN OF CUSTODY FORMS

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-02	0503336-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-48 3/30/05 12:10:00 PM	MW-47 3/30/05 1:10:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC
Arsenic (A')	5.0	6010B	ug/L	56	27
Chromium	5.0	6010B	µg/L	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0
Chromium, Hexavalent	1.3	7196A	mg/L	<1.3	<1.3

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-04
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-14 3/30/05 3:50:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	8.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	<0.13

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-05
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-44 Dup 3/30/05 2:30:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	15
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	46

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				EB@MW-10 3/30/05 3:30:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-08
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-42 3/30/05 1:30:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.25	7196A	mg/L	<0.25

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-09	0503336-10	0503336-11
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-53 3/30/05 10:50:00 AM	MW-54 3/30/05 10:00:00 AM	MW-5 3/30/05 4:50:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0	<5.0	<5.0
Chromium	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025	<0.025	<0.025

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-12
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-10 3/30/05 4:55:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	<0.13

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

ELAB

D. Rick Davis
Vice President

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-01
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-51 3/29/05 1:45:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definition of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-02
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-52 3/29/05 2:15:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	<0.13

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-46 3/29/05 4:15:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	56
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	<0.13

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-04
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-45 3/29/05 3:50:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	2500
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	2.6

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-05
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-49 3/29/05 10:30:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	5.6
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	1.3	7196A	mg/L	<1.3
TOC, Soluble	1.0	415.1	mg/L	2.7

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-50 3/29/05 1:30:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.25	7196A	mg/L	<0.25
TOC, Soluble	1.0	415.1	mg/L	8.0

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/30/05
DATE REPORTED: 04/08/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503320-07
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-43 3/29/05 3:35:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	8.6
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC, Soluble	5.0	415.1	mg/L	140

See attached page for definitions of terms and qualifiers.

(A') = Revised to include Arsenic data.

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D. Rick Davis

CLIENT: Arvin Meritor #126467.003
DATE RECEIVED: 03/31/05
DATE REPORTED: 04/11/05
DATE REVISED: 05/16/05 (A')

ELAB SAMPLE NUMBER				0503336-01
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-44 3/30/05 10:10:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic (A')	5.0	6010B	ug/L	<5.0
Chromium	5.0	6010B	µg/L	17
Lead	3.0	6010B	µg/L	3.4
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	46

See attached page for definition of terms and qualifiers.

(A') = Revised to include Arsenic data.

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Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		V3BLK0401E	0503320-01	0503320-02D	0503320-03D	0503320-04D
DATE SAMPLED		NA	03/29/05	03/29/05	03/29/05	03/29/05
DATE RECEIVED		NA	03/30/05	03/30/05	03/30/05	03/30/05
DATE ANALYZED		04/01/05	04/01/05	04/02/05	04/02/05	04/02/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-51	MW-52	MW-46	MW-45
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	10 X(1) CONC	100 X(1) CONC	100 X(1) CONC
Acetone	10	< 10	< 10	< 100 D	< 1000 D	< 1000 D
Benzene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Bromodichloromethane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Bromoform	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Bromomethane	2.0	< 2.0	< 2.0	< 20 D	< 200 D	< 200 D
2-Butanone	10	< 10	< 10	< 100 D	< 1000 D	< 1000 D
Carbon disulfide	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Carbon tetrachloride	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Chlorobenzene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Chloroethane	2.0	< 2.0	< 2.0	< 20 D	< 200 D	< 200 D
Chloroform	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Chloromethane	2.0	< 2.0	< 2.0	< 20 D	< 200 D	< 200 D
Dibromochloromethane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Dichlorodifluoromethane	2.0	< 2.0	< 2.0	< 20 D	< 200 D	< 200 D
1,1-Dichloroethane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 10 D	38 JD	62 JD
cis-1,2-Dichloroethene	1.0	< 1.0	9.5	600 D	8300 D	13000 D
trans-1,2-Dichloroethene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	36 JD

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SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503320-05D	0503320-06	0503320-07	0503320-08
DATE SAMPLED		03/29/05	03/29/05	03/29/05	03/29/05
DATE RECEIVED		03/30/05	03/30/05	03/30/05	03/30/05
DATE ANALYZED		04/02/05	04/01/05	04/02/05	04/01/05
CLIENT SAMPLE DESCRIPTION		MW-49	MW-50	MW-43	Trip Blank #3096
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	5.0 X(1) CONC	CONC	CONC	CONC
Acetone	10	< 50 D	< 10	7.2 J	< 10
Benzene	1.0	< 5.0 D	< 1.0	1.2	< 1.0
Bromodichloromethane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Bromoform	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Bromomethane	2.0	< 10 D	< 2.0	< 2.0	< 2.0
2-Butanone	10	< 50 D	< 10	< 10	< 10
Carbon disulfide	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Carbon tetrachloride	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Chlorobenzene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Chloroethane	2.0	< 10 D	< 2.0	1.6 J	< 2.0
Chloroform	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Chloromethane	2.0	< 10 D	< 2.0	< 2.0	< 2.0
Dibromochloromethane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane	2.0	< 10 D	< 2.0	< 2.0	< 2.0
1,1-Dichloroethane	1.0	< 5.0 D	< 1.0	2.2	< 1.0
1,2-Dichloroethane	1.0	< 5.0 D	< 1.0	1.9	< 1.0
1,1-Dichloroethene	1.0	3.0 JD	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	720 D	7.1	19	< 1.0
trans-1,2-Dichloroethene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		V3BLK0401E	0503320-01	0503320-02D	0503320-03D	0503320-04D
DATE SAMPLED		NA	03/29/05	03/29/05	03/29/05	03/29/05
DATE RECEIVED		NA	03/30/05	03/30/05	03/30/05	03/30/05
DATE ANALYZED		04/01/05	04/01/05	04/02/05	04/02/05	04/02/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-51	MW-52	MW-46	MW-45
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	10 X(1) CONC	100 X(1) CONC	100 X(1) CONC
1,2-Dichloropropane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
cis-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
trans-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Ethylbenzene	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	< 100 ✓ D
2-Hexanone	5.0	< 5.0	< 5.0	< 50 D	< 500 D	< 500 D
Methylene chloride	2.0	< 2.0	< 2.0 ✓	< 20 ✓ D	< 200 ✓ D	< 200 ✓ D
4-Methyl-2-pentanone	5.0	< 5.0	< 5.0 ✓	< 50 ✓ D	< 500 ✓ D	< 500 ✓ D
Styrene	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
1,1,2,2-Tetrachloroethane	1.0	< 1.0	< 1.0	< 10 D	< 100 D	< 100 D
Tetrachloroethene	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	40 ✓ JD
Toluene	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	< 100 ✓ D
1,1,1-Trichloroethane	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	< 100 ✓ D
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	< 100 ✓ D
Trichloroethene	1.0	< 1.0	7.4 ✓	750 ✓ D	15000 ✓ D	15000 ✓ D
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 20 D	< 200 D	< 200 D
Vinyl acetate	5.0	< 5.0	< 5.0	< 50 D	< 500 D	< 500 D
Vinyl chloride	2.0	< 2.0	< 2.0 ✓	58 ✓ D	530 ✓ D	4100 ✓ D
Xylene(total)	1.0	< 1.0	< 1.0 ✓	< 10 ✓ D	< 100 ✓ D	< 100 ✓ D

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ELAB of TENNESSEE
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Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503320-05D	0503320-06	0503320-07	0503320-08
DATE SAMPLED		03/29/05	03/29/05	03/29/05	03/29/05
DATE RECEIVED		03/30/05	03/30/05	03/30/05	03/30/05
DATE ANALYZED		04/02/05	04/01/05	04/02/05	04/01/05
CLIENT SAMPLE DESCRIPTION		MW-49	MW-50	MW-43	Trip Blank #3096
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	5.0 X(1) CONC	CONC	CONC	CONC
1,2-Dichloropropane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
2-Hexanone	5.0	< 25 D	< 5.0	< 5.0	< 5.0
Methylene chloride	2.0	< 10 D	< 2.0	< 2.0	< 2.0
4-Methyl-2-pentanone	5.0	< 25 D	< 5.0	< 5.0	< 5.0
Styrene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Tetrachloroethene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Toluene	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	510 D	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	2.0	< 10 D	< 2.0	< 2.0	< 2.0
Vinyl acetate	5.0	< 25 D	< 5.0	< 5.0	< 5.0
Vinyl chloride	2.0	50 D	< 2.0	3.7	< 2.0
Xylene(total)	1.0	< 5.0 D	< 1.0	< 1.0	< 1.0

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED.
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Elab

D. Rick Davis
Vice President

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ELAB of TENNESSEE
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ANALYTICAL REPORT TERMS AND QUALIFIERS

EQL: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the most accurate sample result might be less than the reported value and, perhaps, zero. The qualifier will be placed on the analyte according to "National Functional Guidelines." The 10x rule will be applied.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

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ELAB of TENNESSEE
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Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		V3BLK0405	0503336-01	0503336-02D	0503336-03	0503336-04D
DATE SAMPLED		NA	03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		NA	03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/05/05	04/05/05	04/06/05	04/05/05	04/06/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-44	MW-48	MW-47	MW-14
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	5.0 X(1) CONC	CONC	50 X(1) CONC
Acetone	10	< 10	< 10	< 50 D	5.7 J	< 500 D
Benzene	1.0	< 1.0	1.0	< 5.0 D	0.34 J	< 50 D
Bromodichloromethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Bromoform	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Bromomethane	2.0	< 2.0	< 2.0	< 10 D	< 2.0	< 100 D
2-Butanone	10	< 10	< 10	< 50 D	11	< 500 D
Carbon disulfide	1.0	< 1.0	< 1.0	< 5.0 D	0.60 J	< 50 D
Carbon tetrachloride	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Chlorobenzene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Chloroethane	2.0	< 2.0	1.0 J	< 10 D	< 2.0	< 100 D
Chloroform	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Chloromethane	2.0	< 2.0	< 2.0	< 10 D	< 2.0	< 100 D
Dibromochloromethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Dichlorodifluoromethane	2.0	< 2.0	< 2.0	< 10 D	< 2.0	< 100 D
1,1-Dichloroethane	1.0	< 1.0	5.1	< 5.0 D	< 1.0	< 50 D
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
cis-1,2-Dichloroethene	1.0	< 1.0	160	590 D	3.9	4800 D
trans-1,2-Dichloroethene	1.0	< 1.0	< 1.0	1.5 JD	< 1.0	< 50 D

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ELAB of TENNESSEE
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Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503336-05	0503336-06	0503336-07D	0503336-08D	0503336-09
DATE SAMPLED		03/30/05	03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		03/31/05	03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/05/05	04/05/05	04/06/05	04/06/05	04/06/05
CLIENT SAMPLE DESCRIPTION		MW-44 Dup	EB@MW-10	MW-41	MW-42	MW-53
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	20 X(1) CONC	100 X(1) CONC	CONC
Acetone	10	< 10	< 10	< 200 D	< 1000 D	< 10
Benzene	1.0	0.94 J	< 1.0	< 20 D	< 100 D	< 1.0
Bromodichloromethane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Bromoform	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Bromomethane	2.0	< 2.0	< 2.0	< 40 D	< 200 D	< 2.0
2-Butanone	10	< 10	< 10	< 200 D	< 1000 D	< 10
Carbon disulfide	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Carbon tetrachloride	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Chlorobenzene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Chloroethane	2.0	0.81 J	< 2.0	< 40 D	< 200 D	< 2.0
Chloroform	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Chloromethane	2.0	< 2.0	< 2.0	< 40 D	< 200 D	< 2.0
Dibromochloromethane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,2-Dichlorobenzene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,3-Dichlorobenzene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,4-Dichlorobenzene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Dichlorodifluoromethane	2.0	< 2.0	< 2.0	< 40 D	< 200 D	< 2.0
1,1-Dichloroethane	1.0	4.4	< 1.0	12 JD	< 100 D	< 1.0
1,2-Dichloroethane	1.0	0.54 J	< 1.0	< 20 D	< 100 D	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 20 D	59 JD	< 1.0
cis-1,2-Dichloroethene	1.0	140	< 1.0	1600 D	18000 D	17
trans-1,2-Dichloroethene	1.0	< 1.0	< 1.0	< 20 D	55 JD	< 1.0

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SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED.
DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.

227 French Landing Drive ▪ Suite 550 ▪ Nashville, TN 37228 ▪ 615.345.1115 ▪ Fax 615.846.5426

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503336-10	0503336-11D	0503336-12	0503336-13
DATE SAMPLED		03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/06/05	04/06/05	04/06/05	04/05/05
CLIENT SAMPLE DESCRIPTION		MW-54	MW-5	MW-10	TB#3097
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	200 X(1) CONC	CONC	CONC
Acetone	10	< 10	< 2000 D	< 10	< 10
Benzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Bromodichloromethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Bromoform	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Bromomethane	2.0	< 2.0	< 400 D	< 2.0	< 2.0
2-Butanone	10	< 10	< 2000 D	< 10	< 10
Carbon disulfide	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Carbon tetrachloride	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Chlorobenzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Chloroethane	2.0	< 2.0	< 400 D	< 2.0	< 2.0
Chloroform	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Chloromethane	2.0	< 2.0	< 400 D	< 2.0	< 2.0
Dibromochloromethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,2-Dichlorobenzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,3-Dichlorobenzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,4-Dichlorobenzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Dichlorodifluoromethane	2.0	< 2.0	< 400 D	< 2.0	< 2.0
1,1-Dichloroethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,2-Dichloroethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	89	8200 D	1.4	< 1.0
trans-1,2-Dichloroethene	1.0	0.42 J	< 200 D	< 1.0	< 1.0

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		V3BLK0405	0503336-01	0503336-02D	0503336-03	0503336-04D
DATE SAMPLED		NA	03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		NA	03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/05/05	04/05/05	04/06/05	04/05/05	04/06/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-44	MW-48	MW-47	MW-14
VOLATILE ORGANICS BY USEPA METHOD 8260				5.0 X(1)		50 X(1)
	EQL	CONC	CONC	CONC	CONC	CONC
1,2-Dichloropropane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
cis-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
trans-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Ethylbenzene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
2-Hexanone	5.0	< 5.0	< 5.0	< 25 D	< 5.0	< 250 D
Methylene chloride	2.0	< 2.0	< 2.0	< 10 D	< 2.0	< 100 D
4-Methyl-2-pentanone	5.0	< 5.0	< 5.0	< 25 D	< 5.0	< 250 D
Styrene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,1,2,2-Tetrachloroethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Tetrachloroethene	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Toluene	1.0	< 1.0	< 1.0	< 5.0 D	0.24 J	< 50 D
1,1,1-Trichloroethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D
Trichloroethene	1.0	< 1.0	< 1.0	3.8 JD	1.1	16 JD
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 10 D	< 2.0	< 100 D
Vinyl acetate	5.0	< 5.0	< 5.0	< 25 D	< 5.0	< 250 D
Vinyl chloride	2.0	< 2.0	22	6.5 JD	< 2.0	250 D
Xylene(total)	1.0	< 1.0	< 1.0	< 5.0 D	< 1.0	< 50 D

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503336-05	0503336-06	0503336-07D	0503336-08D	0503336-09
DATE SAMPLED		03/30/05	03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		03/31/05	03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/05/05	04/05/05	04/06/05	04/06/05	04/06/05
CLIENT SAMPLE DESCRIPTION		MW-44 Dup	EB@MW-10	MW-41	MW-42	MW-53
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	20 X(1) CONC	100 X(1) CONC	CONC
1,2-Dichloropropane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
cis-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
trans-1,3-Dichloropropene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Ethylbenzene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
2-Hexanone	5.0	< 5.0	< 5.0	< 100 D	< 500 D	< 5.0
Methylene chloride	2.0	< 2.0	< 2.0	< 40 D	< 200 D	< 2.0
4-Methyl-2-pentanone	5.0	< 5.0	< 5.0	< 100 D	< 500 D	< 5.0
Styrene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,1,2,2-Tetrachloroethane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Tetrachloroethene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Toluene	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,1,1-Trichloroethane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0
Trichloroethene	1.0	< 1.0	< 1.0	< 20 D	7600 D	4.7
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 40 D	< 200 D	< 2.0
Vinyl acetate	5.0	< 5.0	< 5.0	< 100 D	< 500 D	< 5.0
Vinyl chloride	2.0	19	< 2.0	360 D	540 D	< 2.0
Xylene(total)	1.0	< 1.0	< 1.0	< 20 D	< 100 D	< 1.0

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Meritor #126467.003
Date Reported: 04/12/05

ELAB SAMPLE NUMBER		0503336-10	0503336-11D	0503336-12	0503336-13
DATE SAMPLED		03/30/05	03/30/05	03/30/05	03/30/05
DATE RECEIVED		03/31/05	03/31/05	03/31/05	03/31/05
DATE ANALYZED		04/06/05	04/06/05	04/06/05	04/05/05
CLIENT SAMPLE DESCRIPTION		MW-54	MW-5	MW-10	TB#3097
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	200 X(1) CONC	CONC	CONC
1,2-Dichloropropane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
cis-1,3-Dichloropropene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
trans-1,3-Dichloropropene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Ethylbenzene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
2-Hexanone	5.0	< 5.0	< 1000 D	< 5.0	< 5.0
Methylene chloride	2.0	< 2.0	< 400 D	< 2.0	< 2.0
4-Methyl-2-pentanone	5.0	< 5.0	< 1000 D	< 5.0	< 5.0
Styrene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Tetrachloroethene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Toluene	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,1,1-Trichloroethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 200 D	< 1.0	< 1.0
Trichloroethene	1.0	17	30000 D	4.9	< 1.0
Trichlorofluoromethane	2.0	< 2.0	< 400 D	< 2.0	< 2.0
Vinyl acetate	5.0	< 5.0	< 1000 D	< 5.0	< 5.0
Vinyl chloride	2.0	3.2	< 400 D	< 2.0	< 2.0
Xylene(total)	1.0	< 1.0	< 200 D	< 1.0	< 1.0

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DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.

Elab

D. Rick Davis
Vice President

227 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ 615.345.1115 ■ Fax 615.846.5426

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

ANALYTICAL REPORT TERMS AND QUALIFIERS

EQL: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the most accurate sample result might be less than the reported value and, perhaps, zero. The qualifier will be placed on the analyte according to "National Functional Guidelines." The 10x rule will be applied.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

L:\REPORTS\ART&QEQLorganics2002.doc

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

№ 33154

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Greg Christians
Company B+C
Address
City,State,Zip Nashville
Phone 250-1216
Fax
E-mail

Send Invoice To:
Name Acct Payable
Company BC
Address
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 1 of 1
Cooler No. 1 of 1
Date Shipped 3-29-05
Shipped By
Turnaround
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name 126467.003

Samplers (Signature)*

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
3320-01	3-29-05	1345	G	MW-51	AQ			VOC's, Pb(total), Cr3, C6	5	3-J-HCl 1-B-NON 1-B-HNO3 -1.0
02		1415		MW-52	AQ				5	-1.0
03		1615		MW-46	AQ				5	-1.0
04		1550		MW-45	AQ				5	-1.0
05		1030		MW-49	AQ			Dissolved Carbon	5	-1.0
06		1330		MW-50	AQ			Dissolved Carbon	5	-1.0
07		1535		MW-43	AQ			Dissolved Carbon	5	-3.0 ADJ TO L5
08		1630		trip blank 3096				total	35	2-J-HCl

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	3-25-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
[signature]	3-29-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time	Temperature
[signature]	3-30-05 9a	2.5 C

REMARKS
*Signature required to ensure validity
① Check historical data on 45, 46, 51 and 52
② No data on 49, 50 or 43

Lab Use Only
VOA Headspace Y (N) NA
Field Filtered Y (N) NA
Correct Containers (Y) N NA
Discrepancies Y (N) NA
Cust. Seals intact (Y) N NA
Containers Intact (Y) N NA
Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0503320 COC ID(s): 3154

Client Brown + Caldwell Project Meritor

Sample Custodian Andy Barton Today's Date 5-30-05

Date/Time Samples Received 3-30/900
Airbill Number FX
Cooler Opened: Date 3-30

Chain of custody seal intact?	Yes	No
Chain of custody provided?	Yes	No
Sample labels present?	Yes	No
Bottle labels correspond w/COC	Yes	No

Number of Custody Seals on Cooler(s): 2 Seal Date(s): 3-29

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓
Frozen _____

# of Coolers 1 Temp. of Coolers 2.5

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

№ 33156

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Greg Christians
Company B+C
Address
City,State,Zip Nashville
Phone 250-
Fax
E-mail

Send Invoice To:
Name Acct Payable
Company B+C
Address
City,State,Zip Nashville
Phone
Purchase Order
E-mail

Details:
Page 1 of
Cooler No. 1 of 1
Date Shipped 3-30-05
Shipped By
Turnaround
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name

Samplers (Signature)*

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
3336-01	3-30-05	1010	G	MW-44	AQ			VOC's, Pb, Cr(tota), Cr6 dissolved carbon	5	30 [illegible] 1B - UNPRES 1B - [illegible]
02		1210		MW-48					5	
03		1310		MW-47					5	
04		1550		MW-14					5	
05		1430		MW-44 Dup				dissolved carbon	5	
06		1530		EB@ MW-10					5	
07		1505		MW-41					10	2X
08		1330		MW-42					5	
09		1050		MW-53					5	
10		1000		MW-54					5	

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	3-25-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
[signature]	3-30-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time	Temperature
[signature]	3-31-05 900	

REMARKS
*Signature required to ensure validity

Lab Use Only
VOA Headspace Y (N) NA
Field Filtered Y (N) NA
Correct Containers (Y) N NA
Discrepancies Y (N) NA
Cust. Seals intact (Y) N NA
Containers Intact (Y) N NA
Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

№ 33157

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Greg Christians
Company B+C
Address
City,State,Zip Nashville
Phone
Fax
E-mail

Send Invoice To:
Name Acct Payable
Company B+C
Address
City,State,Zip Nashville
Phone
Purchase Order
E-mail

Details:
Page 2 of 2
Cooler No. 1 of 1
Date Shipped 3-30-05
Shipped By
Turnaround
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name

Samplers (Signature)*

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
3336-11	3-30-05	1650	G	MW-5	AQ			VOC, Pb, Cr ~~Total~~ (total) Cr6+	5	3 [illegible] 1 [illegible]
12	3-30-05	1655	G	MW-10	AQ				5	
13	3-30-05	1610		TB #3097	AQ			VOC only	~~65~~ 67	2 [illegible]

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	3-25-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
[signature]	3-30-05	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time	*Temperature*

REMARKS
*Signature required to ensure validity

Lab Use Only

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill #
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0503336 COC ID(s): 33156, 33157

Client Brown & Caldwell Project Meritor

Sample Custodian Andy Burton Today's Date 3-31-05

Date/Time Samples Received 3-31 900
Airbill Number FX
Cooler Opened: Date 3-31

Chain of custody seal intact?	Yes	No
Chain of custody provided?	Yes	No
Sample labels present?	Yes	No
Bottle labels correspond w/COC	Yes	No

Number of Custody Seals on Cooler(s): 2 Seal Date(s): 3-30

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓
Frozen _____

# of Coolers 1 Temp. of Coolers 3.0

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

Empirical Laboratories

Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		V3BLK1115	V3BLK1116	0511099-01D	0511099-02D	0511099-03
DATE SAMPLED		NA	NA	11/09/05	11/09/05	11/09/05
DATE RECEIVED		NA	NA	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/15/05	11/16/05	11/15/05	11/15/05	11/15/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	M.BLANK	MW-52	MW-52 DUP	MW-51
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	10 X(1) CONC	10 X(1) CONC	CONC
Benzene	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
cis-1,2-Dichloroethene	1.0	< 1.0	< 1.0	450 ✓ D	430 ✓ D	41 ✓
Tetrachloroethene	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
Toluene	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 10 ✓ D	< 10 ✓ D	< 1.0 ✓
Trichloroethene	1.0	< 1.0	< 1.0	540 ✓ D	520 ✓ D	26 ✓
Vinyl chloride	2.0	< 2.0	< 2.0	49 ✓ D	47 ✓ D	< 2.0 ✓

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

(1) = SAMPLES WERE DILUTED BY THE NUMERICAL VALUE DISPLAYED.
DETECTION LIMITS HAVE BEEN INCREASED BY THE SAME FACTOR.

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Empirical Laboratories

Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		0511099-04D	0511099-05	0511099-06D	0511099-07D	0511099-08
DATE SAMPLED		11/09/05	11/09/05	11/09/05	11/09/05	11/09/05
DATE RECEIVED		11/10/05	11/10/05	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/15/05	11/15/05	11/15/05	11/15/05	11/15/05
CLIENT SAMPLE DESCRIPTION		MW-53	MW-54	MW-45	MW-46	TRIPBLANK #3352
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	5.0 X(1) CONC	CONC	100 X(1) CONC	100 X(1) CONC	CONC
Benzene	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
1,2-Dichloroethane	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
1,1-Dichloroethene	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
cis-1,2-Dichloroethene	1.0	280 ✓ D	120 ✓	12000 ✓ D	7000 ✓ D	< 1.0
Tetrachloroethene	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
Toluene	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
1,1,2-Trichloroethane	1.0	< 5.0 ✓ D	< 1.0 ✓	< 100 ✓ D	< 100 ✓ D	< 1.0
Trichloroethene	1.0	140 ✓ D	28 ✓	11000 ✓ D	14000 ✓ D	< 1.0
Vinyl chloride	2.0	67 ✓ D	5.4 ✓	1500 ✓ D	520 ✓ D	< 2.0

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Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		0511099-09	0511099-10D	0511099-11	0511099-12	0511099-13
DATE SAMPLED		11/09/05	11/09/05	11/09/05	11/09/05	11/09/05
DATE RECEIVED		11/10/05	11/10/05	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/15/05	11/15/05	11/15/05	11/16/05	11/16/05
CLIENT SAMPLE DESCRIPTION		MW-10	MW-5	MW-47	MW-48	MW-14
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	5.0 X(1) CONC	CONC	CONC	CONC
Benzene	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	1.3	250 D	4.6	93	150
Tetrachloroethene	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Toluene	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 5.0 D	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	3.9	820 D	< 1.0	< 1.0	1.8
Vinyl chloride	2.0	< 2.0	< 10 D	< 2.0	190	100

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Empirical Laboratories

Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		0511099-14	0511099-15D
DATE SAMPLED		11/09/05	11/09/05
DATE RECEIVED		11/10/05	11/10/05
DATE ANALYZED		11/15/05	11/15/05
CLIENT SAMPLE DESCRIPTION		EB	MW-42
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	100 X(1) CONC
Benzene	1.0	< 1.0	< 100 D
1,2-Dichloroethane	1.0	< 1.0	< 100 D
1,1-Dichloroethene	1.0	< 1.0	< 100 D
cis-1,2-Dichloroethene	1.0	< 1.0	7100 D
Tetrachloroethene	1.0	< 1.0	< 100 D
Toluene	1.0	< 1.0	< 100 D
1,1,2-Trichloroethane	1.0	< 1.0	< 100 D
Trichloroethene	1.0	< 1.0	< 100 D
Vinyl chloride	2.0	< 2.0	2800 D

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D. Rick Davis
Vice President

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QA'd by Sara W.
date 8/14/06

Empirical Laboratories

Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		V3BLK1116	0511115-01	0511115-02	0511115-03 (QA)	0511115-04 (QA)
DATE SAMPLED		NA	11/10/05	11/10/05	11/10/05	11/10/05
DATE RECEIVED		NA	11/11/05	11/11/05	11/11/05	11/11/05
DATE ANALYZED		11/16/05	11/16/05	11/16/05	11/16/05	11/16/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	Trip Blank #3351	MW-44	MW-44 Diff	MW-43 Diff
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	CONC	CONC	CONC
Benzene	1.0	< 1.0	< 1.0	1.4 ✓	1.4	5.8
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	2.5
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	< 1.0	< 1.0	31 ✓	32	< 1.0
Tetrachloroethene	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	< 1.0
Toluene	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	< 1.0
Trichloroethene	1.0	< 1.0	< 1.0	< 1.0 ✓	< 1.0	< 1.0
Vinyl chloride	2.0	< 2.0	< 2.0	3.1 ✓	2.9	< 2.0

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ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

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QA'd by ____
date ____

Empirical Laboratories

Client: Meritor
Date Reported: 11/17/05

EMPIRICAL LABS SAMPLE NUMBER		0511115-06D	0511115-07 (QA)	0511115-09D (QA)
DATE SAMPLED		11/10/05	11/10/05	11/10/05
DATE RECEIVED		11/11/05	11/11/05	11/11/05
DATE ANALYZED		11/16/05	11/16/05	11/16/05
CLIENT SAMPLE DESCRIPTION		MW-41	MW-50 Diff	MW-49 Diff
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	20 X(1) CONC	CONC	10 X(1) CONC
Benzene	1.0	< 20 D	< 1.0	< 10 D
1,2-Dichloroethane	1.0	< 20 D	< 1.0	< 10 D
1,1-Dichloroethene	1.0	< 20 D	< 1.0	< 10 D
cis-1,2-Dichloroethene	1.0	1700 D	1.7	550 D
Tetrachloroethene	1.0	< 20 D	< 1.0	< 10 D
Toluene	1.0	< 20 D	< 1.0	< 10 D
1,1,2-Trichloroethane	1.0	< 20 D	< 1.0	< 10 D
Trichloroethene	1.0	< 20 D	< 1.0	< 10 D
Vinyl chloride	2.0	300 D	< 2.0	< 20 D

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Vice President

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Empirical Laboratories

Client: Meritor #127939.003
Date Reported: 11/18/05

EMPIRICAL LABS SAMPLE NUMBER		SBLK1111B1	0511099-01	0511099-02	0511099-03	0511099-04
DATE SAMPLED		NA	11/09/05	11/09/05	11/09/05	11/09/05
DATE RECEIVED		NA	11/10/05	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-52	MW-52 DUP	MW-51	MW-53
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	CONC	CONC	CONC	CONC
Bis(2-ethylhexyl)phthalate	5.0	< 5.0	< 5.0	< 5.1	< 5.0	< 5.0

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Client: Meritor #127939.003
Date Reported: 11/18/05

EMPIRICAL LABS SAMPLE NUMBER		0511099-05	0511099-06	0511099-07	0511099-09	0511099-10
DATE SAMPLED		11/09/05	11/09/05	11/09/05	11/09/05	11/09/05
DATE RECEIVED		11/10/05	11/10/05	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
CLIENT SAMPLE DESCRIPTION		MW-54	MW-45	MW-46	MW-10	MW-5
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	CONC	CONC	CONC	CONC
Bis(2-ethylhexyl)phthalate	5.0	< 5.0 ✓	< 5.0 ✓	< 5.0 ✓	< 5.0 ✓	< 5.0 ✓

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Client: Meritor #127939.003
Date Reported: 11/18/05

EMPIRICAL LABS SAMPLE NUMBER		0511099-11	0511099-12	0511099-13	0511099-14	0511099-15
DATE SAMPLED		11/09/05	11/09/05	11/09/05	11/09/05	11/09/05
DATE RECEIVED		11/10/05	11/10/05	11/10/05	11/10/05	11/10/05
DATE ANALYZED		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
CLIENT SAMPLE DESCRIPTION		MW-47	MW-48	MW-14	EB	MW-42
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	CONC	CONC	CONC	CONC
Bis(2-ethylhexyl)phthalate	5.0	< 5.4 ✓	< 5.3 ✓	< 5.2 ✓	< 5.7	< 5.6 ✓

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Client: Meritor #127939.003
Date Reported: 11/18/05

EMPIRICAL LABS SAMPLE NUMBER		SBLK1116B1	0511115-02	0511115-05	0511115-06	0511115-08
DATE SAMPLED		NA	11/10/05	11/10/05	11/10/05	11/10/05
DATE RECEIVED		NA	11/11/05	11/11/05	11/11/05	11/11/05
DATE ANALYZED		11/16/05	11/16/05	11/16/05	11/16/05	11/16/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	MW-44	MW-43	MW-41	MW-50
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC	CONC	CONC	CONC	CONC
Bis(2-ethylhexyl)phthalate	5.0	< 5.0	< 5.0 ✓	< 5.0 ✓	< 5.1 ✓	< 5.1 ✓

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Client: Meritor #127939.003
Date Reported: 11/18/05

EMPIRICAL LABS SAMPLE NUMBER		0511115-10
DATE SAMPLED		11/10/05
DATE RECEIVED		11/11/05
DATE ANALYZED		11/16/05
CLIENT SAMPLE DESCRIPTION		MW-49
BASE NEUTRAL ORGANICS BY USEPA METHOD 8270	EQL	CONC
Bis(2-ethylhexyl)phthalate	5.0	< 5.1 J

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-01
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-52 11/9/05 10:00:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0 ✓
Chromium	5.0	6010B	µg/L	<5.0 ✓
Lead	3.0	6010B	µg/L	<3.0 ✓
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025 ✓

See attached page for definition of terms and qualifiers.

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-02
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-52 DUP 11/9/05 10:00:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-51 11/9/05 10:45:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-04
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-53 11/9/05 12:00:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-05
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-54 11/9/05 12:20:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-45 11/9/05 1:15:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	890
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.25	7196A	mg/L	0.90

See attached page for definitions of terms and qualifiers.

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-07
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-46 11/9/05 3:00:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	13
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.13	7196A	mg/L	<0.13

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-09
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-10 11/9/05 10:50:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

907 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ Tel (615) 345-1115 ■ Fax (615) 846-5426

Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-10
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-5 11/9/05 11:10:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

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Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-11
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-47 11/9/05 10:00:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	19
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.25	7196A	mg/L	<0.25 (5)

See attached page for definitions of terms and qualifiers.

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Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-12
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-48 11/9/05 10:20:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	68
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.63	7196A	mg/L	<0.63

See attached page for definitions of terms and qualifiers.

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Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-13
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-14 11/9/05 1:05:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	18
Chromium	5.0	6010B	µg/L	23
Lead	3.0	6010B	µg/L	18
Chromium, Hexavalent	0.25	7196A	mg/L	<0.25

See attached page for definitions of terms and qualifiers.

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Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-14
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				EB 11/9/05 1:25:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/10/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511099-15
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-42 11/9/05 3:15:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.25	7196A	mg/L	<0.25

See attached page for definitions of terms and qualifiers.

EMPIRICAL LABORATORIES

D. Rick Davis
Vice President

Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/11/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511115-02
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-44 11/10/05 10:55:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	15

See attached page for definition of terms and qualifiers.

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CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/11/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511115-05
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-43 11/10/05 12:00:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	14

See attached page for definitions of terms and qualifiers.

Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/11/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511115-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-41 11/10/05 10:00:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	7.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025

See attached page for definitions of terms and qualifiers.

Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/11/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511115-08
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-50 11/10/05 11:20:00 AM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	1.9

See attached page for definitions of terms and qualifiers.

Empirical Laboratories

CLIENT: Arvin Meritor #127939.003
DATE RECEIVED: 11/11/05
DATE REPORTED: 11/22/05

EMPIRICAL LABORATORIES SAMPLE NUMBER				0511115-10
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				MW-49 11/10/05 12:55:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC
Arsenic	5.0	6010B	µg/L	<5.0
Chromium	5.0	6010B	µg/L	<5.0
Lead	3.0	6010B	µg/L	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025
TOC (NPOC), Soluble	1.0	415.1	mg/L	8.3

See attached page for definitions of terms and qualifiers.

EMPIRICAL LABORATORIES

D. Rick Davis
Vice President

907 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ Tel (615) 345-1115 ■ Fax (615) 846-5426

N: 54565

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Will Rainer
Company BC Nashville
Address
City,State,Zip
Phone 615-250-1239
Fax
E-mail

Send Invoice To:
Name Accts Payable
Company
Address
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 1 of
Cooler No. 1 of
Date Shipped 11-9-05
Shipped By Fed X

Turnaround
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name 127939.003, Meritor PRB Wall Baseline GWM Fall 05

Samplers (Signature)*

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
11099-01	11-9-05	1000	Grab	MW-52	GW	5.8 / 21.0	151	8260 VOC, Total metals (As, Pb, Cr) SVOC, Cr^{6+}	7	3J-HCl 2H-unpres 1BHNO3 pH-1 1B-unpres
02		1000		MW-52 dupe		5.8 / 21.0	151			
03		1045		MW-51		5.4 / 20.1	80			
04		1200		MW-53		5.5 / 21.4	103			
05		1220		MW-54		5.7 / 21.4	141			
06		1315		MW-45		6.0 / 19.8	449		14	x2
07		1500		MW-46		6.1 / 19.6	462		7	
08		1005		Trip Blank# 3352	H_2O	—	—	VOC only	2	2J-HCl

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	11-4-05	[signature]
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
[signature]	11-9-05 1800	
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time	Temperature
[signature]	11-10-05 900	1.9°C

REMARKS
*Signature required to ensure validity
check historical Data, MW-45 + 46
May have high concentrations

Lab Use Only
VOA Headspace Y N NA
Field Filtered Y N NA
Correct Containers Y N NA
Discrepancies Y N NA
Cust. Seals intact Y N NA
Containers Intact Y N NA

Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

N° 34384

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Will Raines
Company BC
Address 501 Great Circle Rd
City,State,Zip Nashville, TN 37228
Phone 615-255-2288
Fax
E-mail

Send Invoice To:
Name AP
Company BC
Address 'Same'
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 2 of 2
Cooler No. 1 of 4
Date Shipped 11/9/05
Shipped By SKE
Turnaround Ato Standard
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name ~~24826-002~~ 127939.003 / Arvin Meritor Baseline Fall 2005
Samplers (Signature)* Sarah R Eun

Lab Use Only Lab #	Date Sampled	Time	Comp./Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
11099-09	11/9/05	1050	G	MW-10	GW	—	-	VOC, Tot. metals, Hex. Chrom, SVOC,	7	3S-HCl 2H-vapor 1C-HNO3 pH 1B
10		1110		MW-5						
11		1000		MW-47						
12		1020		MW-48						
13		1305		MW-14						
14		1325		EB@MW-42						
15		1515		MW-42						

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	11-4-05	Sarah Eun
Relinquished by: (Signature) Sarah R Eun	Date/Time 11/9/05 1620	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature) Andy Barton	Date/Time 11/10/05 900	Temperature 1.9°C

REMARKS
*Signature required to ensure validity

Lab Use Only			
VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0511099 COC ID(s): 34365, 34384

Client BbC Project Meritor

Sample Custodian Andy Barton Today's Date 11-10-05

Date/Time Samples Received 11-10-05 900
Airbill Number FX
Cooler Opened: Date 11-10-05

Chain of custody seal intact?	Yes	No
Chain of custody provided?	Yes	No
Sample labels present?	Yes	No
Bottle labels correspond w/COC	Yes	No

Number of Custody Seals on Cooler(s): 2 Seal Date(s): 11-9-05

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓
Frozen _____

# of Coolers 1 Temp. of Coolers 1.9°c

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

N° 34364

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Will Raines
Company Brown + Caldwell
Address 501 Great Circle Rd Ste 150
City,State,Zip Nashville, TN, 37228
Phone 615-255-2288
Fax
E-mail

Send Invoice To:
Name AP
Company BC
Address "Same"
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 1 of 1
Cooler No. 2 of 2
Date Shipped 11/10/05
Shipped By Sarah E.
Turnaround Normal
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name Arvin Meritor Baseline Fall 2005/127 939.003
Samplers (Signature)* Sarah R Eun

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
11115-01				TRIPBLANK 3351				VOC	2	2J-HCl pH<2
02	11/10/05	1055	G	MW-44	GW			Tot metals, Hex. Chrom., SVOC, ~~So~~ TOC, VOC	~~5~~ 8	3J-HCl pH<2 2H-1B-UNPRES ~~3J-HCl pH~~ 1B HNO3 pH 1.0
03		0920		MW 44 Diff				VOC	3	3J HCl only
04		1135		MW-43 Diff				VOC	3	✓
05		1200		MW-43				Tot. metals, Hex. Chrom, SVOC, TOC	5	
06		1000		MW-41				VOC, Tot. metals, Hex Chrom SVOC.	7	
07		1040		MW-50 Diff				VOC	3	✓
08		1120		MW-50				Tot. metals, Hex Chrom, SVOC, TOC	5	
09		1145		MW-49 Diff				VOC	3	✓
10		1255		MW-49				Tot. metals, Hex Chrom. SVOC, TOC		

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	11-4-05	Sarah Eun
Relinquished by: (Signature) Sarah R Eun	Date/Time 11/10/05 1600	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature) [signature]	Date/Time 11/11/05 0900	Temperature 2.0°C

REMARKS
*Signature required to ensure validity

Lab Use Only
VOA Headspace Y (N) NA
Field Filtered Y (N) NA
Correct Containers (Y) N NA
Discrepancies Y (N) NA
Cust. Seals intact Y N (NA)
Containers Intact (Y) N NA
Airbill # P/G
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0511115 COC ID(s): 34364

Client Brown + Caldwell Project Meritor

Sample Custodian Andy Barton Today's Date 11-11-05

Date/Time Samples Received 11-11-05 900
Airbill Number FX
Cooler Opened: Date 11-11-05

Chain of custody seal intact?	(Yes)	No
Chain of custody provided?	(Yes)	No
Sample labels present?	(Yes)	No
Bottle labels correspond w/COC	(Yes)	No

Number of Custody Seals on Cooler(s): 2 Seal Date(s): 11-10-05

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓
Frozen _____

# of Coolers 1 Temp. of Coolers 2.0°C

Condition of Bottles in Shipment: Broken Leaking (Intact) Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

CLIENT: Arvin Meritor #24826.003
DATE RECEIVED: 03/03/05
DATE REPORTED: 03/14/05

ELAB SAMPLE NUMBER				0503034-01	0503034-02	0503034-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				SW-17 3/2/05 2:10:00 PM	SW-9 3/2/05 2:35:00 PM	SW-9 (DUP) 3/2/05 2:35:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC	CONC
Arsenic	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Chromium	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025	<0.025	<0.025

See attached page for definition of terms and qualifiers.

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

CLIENT: Arvin Meritor #24826.003
DATE RECEIVED: 03/03/05
DATE REPORTED: 03/14/05

ELAB SAMPLE NUMBER				0503034-04	0503034-05	0503034-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				SW-19 3/2/05 3:00:00 PM	SW-12 3/2/05 3:20:00 PM	SW-22 3/2/05 3:30:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC	CONC
Arsenic	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Chromium	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0	<3.0
Chromium, Hexavalent	0.025	7196A	mg/L	<0.025	<0.025	<0.025

See attached page for definitions of terms and qualifiers.

ELAB

D. Rick Davis
Vice President

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

ANALYTICAL REPORT NOTES, TERMS AND QUALIFIERS (INORGANIC)

Notes:

The metals and cyanide reporting limits (RLs) have been statistically determined to be no less than three standard deviations as defined in 40 CFR 136, Appendix B, Revision 1.11. All other reporting limits are referenced from the specific analytical method.

Terms:

NA Not Applicable

NR Not Requested

Qualifiers:

B The reported value is less than the practical quantitation limit (PQL, project defined) but greater than or equal to the RL.

E The reported value is estimated due to the presence of matrix interference.

N Predigested spike recovery not within control limits.

* RPD or absolute difference for Duplicate analysis not within control limits.

** Reference Standard Methods 19th edition.

(1) pH analyzed outside USEPA specified holding time. pH must be measured immediately after sample collection.

(2) The sample pH did not meet the preservation guidelines. Therefore the pH was adjusted upon receipt.

(3) Reference Standard Methods 17th edition for the distillation method.

(4) The sample was analyzed out of the USEPA holding time.

(5) The sample was received in the laboratory out of the USEPA holding time.

(6) The shipping cooler temperature exceeded 6°C upon receipt to ELAB of Tennessee, LLC.

(7) Analysis was subcontracted

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Arvin Meritor #24826.003
Date Reported: 03/15/05

ELAB SAMPLE NUMBER		V3BLK0309	0503034-01	0503034-02	0503034-03	0503034-04
DATE SAMPLED		NA	03/02/05	03/02/05	03/02/05	03/02/05
DATE RECEIVED		NA	03/03/05	03/03/05	03/03/05	03/03/05
DATE ANALYZED		03/10/05	03/10/05	03/10/05	03/10/05	03/10/05
CLIENT SAMPLE DESCRIPTION		M.BLANK	SW-17	SW-9	SW-9 (DUP)	SW-19
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	CONC	CONC	CONC
Benzene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1.2-Dichloroethene	1.0	< 1.0	31	45	42	15
Tetrachloroethene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	< 1.0	22	34	33	8.5
Vinyl chloride	2.0	< 2.0	2.4	3.4	3.6	0.89 J

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Arvin Meritor #24826.003
Date Reported: 03/15/05

ELAB SAMPLE NUMBER		0503034-05	0503034-06	0503034-07
DATE SAMPLED		03/02/05	03/02/05	03/02/05
DATE RECEIVED		03/03/05	03/03/05	03/03/05
DATE ANALYZED		03/10/05	03/10/05	03/10/05
CLIENT SAMPLE DESCRIPTION		SW-12	SW-22	Trip Blank #3081
VOLATILE ORGANICS BY USEPA METHOD 8260	EQL	CONC	CONC	CONC
Benzene	1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	1.0	13	< 1.0	< 1.0
Tetrachloroethene	1.0	< 1.0	< 1.0	< 1.0
Toluene	1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	1.0	4.0	< 1.0	0.20 J
Vinyl chloride	2.0	0.64 J	< 2.0	< 2.0

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <EQL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS

Elab

D. Rick Davis
Vice President

227 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ 615.345.1115 ■ Fax 615.846.5426

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

ANALYTICAL REPORT TERMS AND QUALIFIERS

EQL: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the most accurate sample result might be less than the reported value and, perhaps, zero. The qualifier will be placed on the analyte according to "National Functional Guidelines." The 10x rule will be applied.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported.

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ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0503034 COC ID(s): 32971

Client Brown and Caldwell Project Monitor

Sample Custodian Gary Forsythe Today's Date 3-3-05

Date/Time Samples Received 3-3/900
Airbill Number FX
Cooler Opened: Date 3-3

Chain of custody seal intact?	Yes (NA)	No
Chain of custody provided?	(Yes)	No
Sample labels present?	(Yes)	No
Bottle labels correspond w/COC	(Yes)	No

Number of Custody Seals on Cooler(s): 0 Seal Date(s): NA

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓
Frozen _____

# of Coolers 1 Temp. of Coolers 3.0

Condition of Bottles in Shipment: Broken Leaking (Intact) Missing

If broken or leaking list sample ID#s and bottle types affected:

Comments:

ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

№ 32501

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name W. Raines
Company Brown and Caldwell
Address 501 Great Circle Rd. Ste 150
City,State,Zip Nashville, TN 37228
Phone 615-255-2288
Fax 615-256-8332
E-mail wraines@brwncald.com

Send Invoice To:
Name Same
Company
Address
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 1 of 1
Cooler No. ___ of ___
Date Shipped 3-2-05
Shipped By JH
Turnaround STD
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name Grenada 1st Qtr surface Water Sampling 2005
Samplers (Signature)* J. How

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
3034-01	3-2-05	1410	G	SW-17	Liquid or SW	6.99/11.5°C	166 µS	VOC, Tot. Metals, Cr^{6+}	5	3J-HCl pH<2, 1J-UNPRES, 1J-UNPRES pH7.1
02		1435		SW-9		7.22/9.7	216			
03		1435		SW-9 (DUP)		7.21/9.7	222			
04		1500		SW-19		7.22/10.1	168			
05		1528		SW-12		7.40/10.0	376			
06		1530		SW-22		7.22/8.9	166			
07		1400		Trip Blank 3081					2	2J-HCl pH<2
08				SW-20 MS/MSD		7.22/8.9	166		5	SAME AS -01

Sample Kit Prep'd by: (Signature)	Date 2-17-05	Received By: (Signature) J. How
Relinquished by: (Signature) J. How	Date/Time 3-2-05	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature)	Date/Time 3-2-05 900	Temperature 2-3.0°C

REMARKS
*Signature required to ensure validity
Tot. Metals (As, Cr, Pb)
Liquid: Surface Water

Lab Use Only

VOA Headspace	Y	N	NA
Field Filtered	Y	N	NA
Correct Containers	Y	N	NA
Discrepancies	Y	N	NA
Cust. Seals intact	Y	N	NA
Containers Intact	Y	N	NA

Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

CLIENT: Arvin Meritor #127939.002
DATE RECEIVED: 05/17/05
DATE REPORTED: 05/26/05

ELAB SAMPLE NUMBER				0505104-01	0505104-02	0505104-03
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				SW-17 5/16/05 3:15:00 PM	SW-9 5/16/05 4:15:00 PM	SW-19 5/16/05 4:40:00 PM
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC	CONC
Arsenic	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Chromium	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0	<3.0
Chromium, Hexavalent	0.010	7196A	mg/L	<0.010	<0.010	<0.010

See attached page for definition of terms and qualifiers.

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

CLIENT: Arvin Meritor #127939.002
DATE RECEIVED: 05/17/05
DATE REPORTED: 05/26/05

ELAB SAMPLE NUMBER				0505104-04	0505104-05	0505104-06
CLIENT SAMPLE DESCRIPTION/SAMPLING DATE				SW-12 5/16/05 4:48:00 PM	SW-22 5/16/05 5:25:00 PM	SW-DUP 5/16/05
ANALYTES	REPORTING LIMITS	USEPA METHOD	UNITS	CONC	CONC	CONC
Arsenic	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Chromium	5.0	6010B	µg/L	<5.0	<5.0	<5.0
Lead	3.0	6010B	µg/L	<3.0	<3.0	<3.0
Chromium, Hexavalent	0.010	7196A	mg/L	<0.010	<0.010	<0.010

See attached page for definitions of terms and qualifiers.

ELAB

D. Rick Davis
Vice President

227 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ 615.345.1115 ■ Fax 615.846.5426

ELAB of TENNESSEE
formerly Eckenfelder Laboratory

ANALYTICAL REPORT NOTES, TERMS AND QUALIFIERS (INORGANIC)

Notes:

The metals and cyanide reporting limits (RLs) have been statistically determined to be no less than three standard deviations as defined in 40 CFR 136, Appendix B, Revision 1.11. All other reporting limits are referenced from the specific analytical method.

Terms:

NA Not Applicable

NR Not Requested

Qualifiers:

B The reported value is less than the practical quantitation limit (PQL, project defined) but greater than or equal to the MDL.

E The reported value is estimated due to the presence of matrix interference.

N Predigested spike recovery not within control limits.

* RPD or absolute difference for Duplicate analysis not within control limits.

** Reference Standard Methods 19th edition.

(1) pH analyzed outside USEPA specified holding time. pH must be measured immediately after sample collection.

(2) The sample pH did not meet the preservation guidelines. Therefore the pH was adjusted upon receipt.

(3) Reference Standard Methods 17th edition for the distillation method.

(4) The sample was analyzed out of the USEPA holding time.

(5) The sample was received in the laboratory out of the USEPA holding time.

(6) The shipping cooler temperature exceeded 6°C upon receipt to ELAB of Tennessee, LLC.

(7) Analysis was subcontracted

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Arvin Meritor #127939.002
Date Reported: 05/24/05

ELAB SAMPLE NUMBER			V3BLK0520	0505104-01	0505104-02	0505104-03	0505104-04
DATE SAMPLED			NA	05/16/05	05/16/05	05/16/05	05/16/05
DATE RECEIVED			NA	05/17/05	05/17/05	05/17/05	05/17/05
DATE ANALYZED			05/20/05	05/20/05	05/20/05	05/20/05	05/20/05
CLIENT SAMPLE DESCRIPTION			M.BLANK	SW-17	SW-9	SW-19	SW-12
VOLATILE ORGANICS BY USEPA METHOD 8260	MDL	EQL	CONC	CONC	CONC	CONC	CONC
Acetone	2.0	10	< 2.0	< 2.0	< 2.0	8.7 J	< 2.0
Benzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Bromodichloromethane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Bromoform	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Bromomethane	0.40	2.0	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
2-Butanone	4.0	10	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Carbon disulfide	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Carbon tetrachloride	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Chlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Chloroethane	0.30	2.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Chloroform	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Chloromethane	0.40	2.0	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
Dibromochloromethane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,2-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,3-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,4-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	0.40	2.0	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
1,1-Dichloroethane	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
1,2-Dichloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,1-Dichloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
cis-1,2-Dichloroethene	0.30	1.0	< 0.30	23	38	3.2	1.7
trans-1,2-Dichloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <MDL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

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ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

Client: Arvin Meritor #127939.002
Date Reported: 05/24/05

ELAB SAMPLE NUMBER			0505104-05	0505104-06	0505104-07
DATE SAMPLED			05/16/05	05/16/05	05/16/05
DATE RECEIVED			05/17/05	05/17/05	05/17/05
DATE ANALYZED			05/20/05	05/20/05	05/20/05
CLIENT SAMPLE DESCRIPTION			SW-22	SW-DUP	Trip Blk #3184
VOLATILE ORGANICS BY USEPA METHOD 8260	MDL	EQL	CONC	CONC	CONC
Acetone	2.0	10	< 2.0	< 2.0	< 2.0
Benzene	0.20	1.0	< 0.20	< 0.20	< 0.20
Bromodichloromethane	0.20	1.0	< 0.20	< 0.20	< 0.20
Bromoform	0.20	1.0	< 0.20	< 0.20	< 0.20
Bromomethane	0.40	2.0	< 0.40	< 0.40	< 0.40
2-Butanone	4.0	10	< 4.0	< 4.0	< 4.0
Carbon disulfide	0.30	1.0	< 0.30	< 0.30	< 0.30
Carbon tetrachloride	0.30	1.0	< 0.30	< 0.30	< 0.30
Chlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20
Chloroethane	0.30	2.0	< 0.30	< 0.30	< 0.30
Chloroform	0.30	1.0	< 0.30	< 0.30	< 0.30
Chloromethane	0.40	2.0	< 0.40	< 0.40	< 0.40
Dibromochloromethane	0.20	1.0	< 0.20	< 0.20	< 0.20
1,2-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20
1,3-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20
1,4-Dichlorobenzene	0.20	1.0	< 0.20	< 0.20	< 0.20
Dichlorodifluoromethane	0.40	2.0	< 0.40	< 0.40	< 0.40
1,1-Dichloroethane	0.30	1.0	< 0.30	< 0.30	< 0.30
1,2-Dichloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20
1,1-Dichloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30
cis-1,2-Dichloroethene	0.30	1.0	< 0.30	23	< 0.30
trans-1,2-Dichloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <MDL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

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ELAB of TENNESSEE
formerly Eckenfelder Laboratory

Client: Arvin Meritor #127939.002
Date Reported: 05/24/05

ELAB SAMPLE NUMBER			V3BLK0520	0505104-01	0505104-02	0505104-03	0505104-04
DATE SAMPLED			NA	05/16/05	05/16/05	05/16/05	05/16/05
DATE RECEIVED			NA	05/17/05	05/17/05	05/17/05	05/17/05
DATE ANALYZED			05/20/05	05/20/05	05/20/05	05/20/05	05/20/05
CLIENT SAMPLE DESCRIPTION			M. BLANK	SW-17	SW-9	SW-19	SW-12
VOLATILE ORGANICS BY USEPA METHOD 8260	MDL	EQL	CONC	CONC	CONC	CONC	CONC
1,2-Dichloropropane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
cis-1,3-Dichloropropene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
trans-1,3-Dichloropropene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
2-Hexanone	1.0	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	0.30	2.0	< 0.30	< 0.30	< 0.30	0.36 J	< 0.30
4-Methyl-2-pentanone	1.0	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,1,2,2-Tetrachloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Tetrachloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Toluene	0.20	1.0	< 0.20	< 0.20	< 0.20	0.44 J	< 0.20
1,1,1-Trichloroethane	0.30	1.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
1,1,2-Trichloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Trichloroethene	0.20	1.0	< 0.20	8.6	16	0.88 J	0.89 J
Trichlorofluoromethane	0.30	2.0	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30
Vinyl acetate	0.60	5.0	< 0.60	< 0.60	< 0.60	< 0.60	< 0.60
Vinyl chloride	0.50	2.0	< 0.50	3.3	6.8	< 0.50	< 0.50
Xylene(total)	0.20	1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <MDL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

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:LAB of TENNESSEE
formerly Eckenfelder Laboratory

Client: Arvin Meritor #127939.002
Date Reported: 05/24/05

ELAB SAMPLE NUMBER			0505104-05	0505104-06	0505104-07
DATE SAMPLED			05/16/05	05/16/05	05/16/05
DATE RECEIVED			05/17/05	05/17/05	05/17/05
DATE ANALYZED			05/20/05	05/20/05	05/20/05
CLIENT SAMPLE DESCRIPTION			SW-22	SW-DUP	Trip Blk #3184
VOLATILE ORGANICS BY USEPA METHOD 8260	MDL	EQL	CONC	CONC	CONC
1,2-Dichloropropane	0.20	1.0	< 0.20	< 0.20	< 0.20
cis-1,3-Dichloropropene	0.20	1.0	< 0.20	< 0.20	< 0.20
trans-1,3-Dichloropropene	0.20	1.0	< 0.20	< 0.20	< 0.20
Ethylbenzene	0.20	1.0	< 0.20	< 0.20	< 0.20
2-Hexanone	1.0	5.0	< 1.0	< 1.0	< 1.0
Methylene chloride	0.30	2.0	< 0.30	< 0.30	< 0.30
4-Methyl-2-pentanone	1.0	5.0	< 1.0	< 1.0	< 1.0
Styrene	0.20	1.0	< 0.20	< 0.20	< 0.20
1,1,2,2-Tetrachloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20
Tetrachloroethene	0.30	1.0	< 0.30	< 0.30	< 0.30
Toluene	0.20	1.0	< 0.20	< 0.20	0.25 J
1,1,1-Trichloroethane	0.30	1.0	< 0.30	< 0.30	< 0.30
1,1,2-Trichloroethane	0.20	1.0	< 0.20	< 0.20	< 0.20
Trichloroethene	0.20	1.0	< 0.20	9.4	< 0.20
Trichlorofluoromethane	0.30	2.0	< 0.30	< 0.30	< 0.30
Vinyl acetate	0.60	5.0	< 0.60	< 0.60	< 0.60
Vinyl chloride	0.50	2.0	< 0.50	3.8	< 0.50
Xylene(total)	0.20	1.0	< 0.20	< 0.20	< 0.20

ALL COMPOUNDS EXPRESSED IN MICROGRAMS/LITER UNLESS OTHERWISE NOTED.

ALL NON-DETECT VALUES ARE REPORTED AS <MDL (MODIFIED TO REFLECT DILUTIONS/SAMPLE VOLUME).

SEE ATTACHED PAGE FOR DEFINITIONS OF TERMS AND QUALIFIERS.

Elab

D. Rick Davis
Vice President

237 French Landing Drive ■ Suite 550 ■ Nashville, TN 37228 ■ 615.345.1115 ■ Fax 615.846.5426

ELAB of TENNESSEE
Formerly Eckenfelder Laboratory

ANALYTICAL REPORT TERMS AND QUALIFIERS (GC/MS)

MDL: The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix.

EQL: The estimated quantitation limit (EQL) is defined as the estimated concentration above which quantitative results can be obtained with a specific degree of confidence. ELAB defines the EQL to be at or near the lowest calibration standard.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the most accurate sample result might be less than the reported value and, perhaps, zero. The qualifier will be placed on the analyte according to "National Functional Guidelines." The 10x rule will be applied.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The chromatographic data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL.

K:\REPORTS\ART&QLT.DOC

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ELAB OF TENNESSEE CHAIN OF CUSTODY RECORD

№ 33x.1

Ship to:
ELAB of Tennessee
227 French Landing Drive
Suite 550
Nashville, TN 37228
Attn: Analytical Laboratory
(615) 345-1115 (phone)
(615) 846-5426 (fax)

Send Results to:
Name Will Raines
Company Brown + Caldwell
Address Suite 130, 501 Great Circle Road
City,State,Zip Nashville, TN
Phone 615-250-1234
Fax 615-296-8332
E-mail

Send Invoice To:
Name Same
Company
Address
City,State,Zip
Phone
Purchase Order
E-mail

Details:
Page 1 of 1
Cooler No. 1 of 1
Date Shipped 5/16/05
Shipped By Chris Ward
Turnaround Std.
(Std. Turn unless noted otherwise / There may be a surcharge for RUSH-contact lab)

Project No./Name / SW Sampling Arvin Meritor
Samplers (Signature)* Christopher Ward

Lab Use Only Lab #	Date Sampled	Time	Comp./ Grab	Sample Location/Description	Sample Matrix	Field pH/Temp	Field Cond.	ANALYSIS REQUIRED	No. of Bottles	Lab Use Only Containers/Pres.
5104-01	5/16/05	15:15	Grab	SW-17	Water	7.21/21.6	186	VOC (3) Tot. Metals (CAs, Cr, Pb) (1) Hex Chrom (1)	5	3J-HCL pH<2; 1B-HNO3 pH<2; 1B-UNPRES
02		16:15		SW-9		7.36/21.0	198			
03		16:40		SW-14		7.71/21.2	185			
04		16:48		SW-12		9.01/23.3	249			
05		17:25		SW-22 (MS/MSD)		7.67/22.3	169		10	2x
06				SW-Dup					5	
07				Trip Blk 3184				VOC	2	2J-HCL pH<2

Sample Kit Prep'd by: (Signature)	Date	Received By: (Signature)
[signature]	5-12-05	Christopher Ward
Relinquished by: (Signature) Christopher Ward	Date/Time 5-16-05	Received By: (Signature)
Relinquished by: (Signature)	Date/Time	Received By: (Signature)
Received for Laboratory by: (Signature) [signature]	Date/Time 5-17-05 9:00	Temperature 4°C

REMARKS
*Signature required to ensure validity

Lab Use Only
VOA Headspace Y N NA
Field Filtered Y N NA
Correct Containers Y N NA
Discrepancies Y N NA
Cust. Seals intact Y N NA
Containers Intact Y N NA
Airbill # FX
CAR #

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers

ELAB OF TN COOLER RECEIPT FORM

LIMS Number 0505104 COC ID(s): 33471

Client BROWN + CALDWELL Project ARVIN MERITOR SW

Sample Custodian G FORSYTHE Today's Date 5-17-05

Date/Time Samples Received 5-17-05/900

Airbill Number FX

Cooler Opened: Date 5-17-05

Chain of custody seal intact?	Yes	No
Chain of custody provided?	Yes	No
Sample labels present?	Yes	No
Bottle labels correspond w/COC	Yes	No

Number of Custody Seals on Cooler(s): 2 Seal Date(s): 5-16-05

Type of coolant used ICE

Coolant condition : Melted _____ Partially melted/frozen ✓

Frozen _____

# of Coolers 1 Temp. of Coolers 4.0°C

Condition of Bottles in Shipment: Broken Leaking Intact Missing

If broken or leaking list sample ID#s and bottle types affected:

N/A

Comments: