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Racer Trust Lansing-Plant 2

Data Review

LANSING, MICHIGAN

Volatiles, Semivolatiles, PCBs, and Metals Analyses

SDG# S49839

Analyses Performed By:
Merit Laboratories, Inc.
East Lansing, MI

Report: #14817R
Review Level: Tier I
Project: B0064479.2011.21INV

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) # S49839 for samples collected in association with the Racer Trust Plant 2 Site. The review was conducted as a Tier I evaluation and included review of data package completeness as required under Region III M2 validation. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
P2-SB-30(3-4')082611	S49839.01	Soil	08/26/2011		X	X	X	X	
P2-SB-30(14-15')082611	S49839.02	Soil	08/26/2011		X	X	X	X	
P2-SB-17(4-5')082611	S49839.03	Soil	08/26/2011		X	X	X	X	
P2-SB-17(9-10')082611	S49839.04	Soil	08/26/2011		X	X	X	X	

Note:

1. Matrix spike/matrix spike duplicate was performed on sample location P2-SB-30(3-4')082611 for mercury and metals only.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260B, 8260 –SIM, 8270C and 8082. All samples in this data set were subjected to M-2 (Tier I) level data validation for organic compounds, as defined in the *USEPA Region III Innovative Approaches to Data Validation (June 1995)*. Validation was performed following the procedures specified in *Region III Modifications to National Functional Guidelines for Organic Data Review (September 1994) and* USEPA National Functional Guidelines of October 1999*.* Modifications to the procedures were necessary to accommodate method and reporting differences for samples analyzed using non-CLP methods (i.e., USEPA SW-846 methods). The Tier I was completed as defined in the MLC Buick City work plan (August 13, 2010). The quality indicators of this limited data review are included in the checklist.

The quality indicators of this data review were limited to the forms/data supplied by the laboratory which included: holding times, associated blanks, laboratory control samples, matrix spike/matrix spike duplicate samples, field duplicates and surrogate recoveries.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only..

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  UL The compound was not detected, quantitation limit is probably higher.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

UB Compound considered non-detect at the listed value due to associated blank contamination.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

K The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high. Actual concentration is expected lower.

L The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased low. Actual concentration is expected to be higher.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260 and 8260B-SIM	Water	14 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to 4°C±2°C.

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. No qualification of the sample results was required.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample location within this SDG.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not included with this SDG.

7. System Performance and Overall Assessment

The compound 1,2-Dibromoethane associated with sample location P2-SB-17(9-10')082611 was qualified with an “X” which indicates an elevated reporting limit due to matrix interference. The mass spectra were reviewed for this sample. Although the secondary ion ratios are outside of the control limits, review of the ion spectra is not enough evidence to reverse the result reported by the laboratory. The compound 1,2-Dibromoethane is reported as non-detect at the elevated reporting limit and qualified as estimated (J).

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier I Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	

%R Percent recovery
RPD Relative percent difference
%D Percent difference

SEMIVOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8270	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample location within this SDG.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not included with this SDG.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR SVOCs

SVOCs: SW-846 8270	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier I Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS)					X
Matrix Spike Duplicate(MSD)					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	

%R - percent recovery, RPD - relative percent difference

POLYCHLORINATED BIPHENYLS (PCBs) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to 4°C±2°C

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

A MS/MSD analysis was not performed on a sample location within this SDG.

5. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not collected for this parameter.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR PCBs

PCBs; SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
Tier I Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R					X
Matrix Spike Duplicate(MSD) %R					X
MS/MSD Precision (RPD)					X
Field/Lab Duplicate (RPD)					X
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method 6020 and 7471A. All samples in this data set were subjected to IM-1 (Tier I) level data validation for inorganic compounds, as defined in the *USEPA Region III Innovative Approaches to Data Validation (June 1995)*. Validation was performed following the procedures specified in *Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses (April 1993)* and USEPA *National Functional Guidelines for Inorganic Data Review (July 2002).* Modifications to the procedures were necessary to accommodate method and reporting differences for samples analyzed using non-CLP methods (i.e., USEPA SW-846 methods). The Tier I was completed as defined in the MLC Buick City work plan (August 13, 2010). The quality indicators of this limited data review are included in the checklist.

The quality indicators of this data review were limited to the forms/data supplied by the laboratory which included: holding times, associated blanks, laboratory control samples, matrix spike/matrix spike duplicate samples, and field duplicates.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UL The analyte was not detected, quantitation limit is probably higher.

JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

UB Analyte considered non-detect at the listed value due to associated blank contamination.

N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

K The analyte was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high. Actual concentration is expected lower.

L The analyte was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased low. Actual concentration is expected to be higher.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6020	Water	180 days from collection to analysis	Cooled @ Cooled @ 4°C +/- 2; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cooled @ 4°C +/- 2
SW-846 7470	Water	28 days from collection to analysis	Cool to 4°C±2°C; preserved to a pH of less than 2.
SW-846 7471	Soil	28 days from collection to analysis	Cool to 4°C±2°C.

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Matrix Spike (MS/MSD)/ Matrix Spike Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

The MS/MSD analysis exhibited recoveries within the control limits.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPD.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the precision and accuracy of the field sampling procedures and analytical method. A control limit of 50% for water matrices and 100% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

A field duplicate was not included with this SDG.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

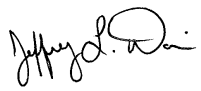
Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METAL

METALS; SW-846 6000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP)					
Tier I Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks					X
B. Method Blanks		X		X	
C. Rinse Blanks					X
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R					X
Matrix Spike Duplicate (MSD) %R					X
MS/MSD Precision (RPD)					X
Field Duplicate (RPD)					X
ICP Serial Dilution					X

%R Percent recovery
RPD Relative percent difference

VALIDATION PERFORMED BY: Jeffrey L. Davin

SIGNATURE: 

DATE: October 6, 2011

PEER REVIEW BY: Dennis Capria

DATE: November 3, 2011

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S49839.01
Sample Tag: P2-SB-30(3-4')082611
Collected Date/Time: 08/26/2011 13:50
Matrix: Soil
COC Reference: 16137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.0	IR
1	40ml Glass	MeOH	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/31/11 23:59	EMR		
Extraction, PCB	Completed			3550B	08/30/11 13:04	ADB		
Mercury Digestion	Completed			7471A	08/30/11 12:00	JRH		
Metal Digestion	Completed			3050B	08/31/11 11:00	PER		
Inorganics								
Total Solids	85	%	1	Std M 2540 B	08/29/11 14:15	DJS		
Metals								
Antimony	Not detected	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-36-0	
Arsenic	0.57	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-38-2	
Barium	36.2	mg/kg	1.3	6020	08/31/11 17:12	PER	7440-39-3	
Beryllium	0.33	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-41-7	
Boron	Not detected	mg/kg	5.12	6020	09/01/11 14:29	PER	7440-42-8	
Cadmium	0.37	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-43-9	
Chromium	4.27	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-47-3	
Cobalt	1.79	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-48-4	
Copper	11.0	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-50-8	
Lead	6.65	mg/kg	0.13	6020	08/31/11 17:12	PER	7439-92-1	
Manganese	50.1	mg/kg	0.13	6020	08/31/11 17:12	PER	7439-96-5	
Mercury	0.0320	mg/kg	0.0059	7471A	08/30/11 16:08	JRT	7439-97-6	
Nickel	3.56	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-02-0	
Selenium	0.40	mg/kg	0.13	6020	08/31/11 17:12	PER	7782-49-2	
Silver	Not detected	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-22-4	
Thallium	Not detected	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-28-0	
Vanadium	14.8	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-62-2	
Zinc	26.4	mg/kg	0.13	6020	08/31/11 17:12	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11104-28-2	

Lab Sample ID: S49839.01 (continued)
Sample Tag: P2-SB-30(3-4')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - PCBs/Pesticides (continued)								
TCL PCB List (Column 2) (continued)								
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:15	JANB	11096-82-5	
Organics - Semi-Volatiles								
TCL Semi-Volatile Organics								
Acenaphthene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	208-96-8	
Acetophenone	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	98-86-2	
Anthracene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	120-12-7	
Atrazine	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	1912-24-9	
1,1'-Biphenyl	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	92-52-4	
4-Bromophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	101-55-3	
di-n-Butyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 18:49	PL	84-74-2	
Benzaldehyde	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	100-52-7	
Benzo(a)anthracene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	205-99-2	
Benzo(ghi)perylene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	191-24-2	
Benzo(k)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	207-08-9	
Butyl benzyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	91-58-7	
2-Chlorophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	95-57-8	
4-Chloro-3-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	59-50-7	
4-Chloroaniline	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	106-47-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	7005-72-3	
Caprolactam	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	105-60-2	
Carbazole	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	86-74-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	108-60-1	
Chrysene	Not detected	ug/kg	80	8270C	09/07/11 18:49	PL	218-01-9	
2,4-Dichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	120-83-2	
2,4-Dimethylphenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	606-20-2	
3,3'-Dichlorobenzidine	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	91-94-1	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	534-52-1	
Dibenzo(ah)anthracene	Not detected	ug/kg	80	8270C	09/07/11 18:49	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	132-64-9	
Diethyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 18:49	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 18:49	PL	131-11-3	
bis(2-Ethylhexyl)phthalate	50	ug/kg	40	8270C	09/07/11 18:49	PL	117-81-7	
Fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	206-44-0	
Fluorene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	87-68-3	

Lab Sample ID: S49839.01 (continued)
Sample Tag: P2-SB-30(3-4')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
TCL Semi-Volatile Organics (continued)								
Hexachlorocyclopentadiene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	193-39-5	
Isophorone	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	91-57-6	
2-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	95-48-7	
3-, 4-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	3/4-Cresol	
2-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	88-74-4	
2-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	88-75-5	
3-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	100-01-6	
4-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	100-02-7	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	621-64-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	86-30-6	
Naphthalene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	91-20-3	
Nitrobenzene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	98-95-3	
di-n-Octyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	117-84-0	
Pentachlorophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	85-01-8	
Phenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	108-95-2	
Pyrene	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	129-00-0	
2,4,5-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 18:49	PL	88-06-2	
Organics - Volatiles								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	3	8260B - SIM	08/30/11 17:22	JGH	96-12-8	
1,2-Dibromoethane	Not detected	ug/kg	1	8260B - SIM	08/30/11 17:22	JGH	106-93-4	
1,4-Dioxane	Not detected	ug/kg	300	8260B	08/30/11 17:22	WAT	123-91-1	
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	76-13-1	
Acetone	Not detected	ug/kg	690	5035/8260B	08/31/11 20:12	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	690	5035/8260B	08/31/11 20:12	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	690	5035/8260B	08/31/11 20:12	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	156-59-2	
Chloroform	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	71-55-6	

Lab Sample ID: S49839.01 (continued)
Sample Tag: P2-SB-30(3-4')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Cyclohexane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	690	5035/8260B	08/31/11 20:12	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	690	5035/8260B	08/31/11 20:12	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	56-23-5	
Benzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	10061-01-5	
Toluene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/31/11 20:12	WAT		
o-Xylene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	95-47-6	
Styrene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	98-82-8	
Bromoform	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	70	5035/8260B	08/31/11 20:12	WAT	120-82-1	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S49839.02
Sample Tag: P2-SB-30(14-15')082611
Collected Date/Time: 08/26/2011 14:00
Matrix: Soil
COC Reference: 16137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.0	IR
1	40ml Glass	MeOH	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/31/11 23:59	EMR		
Extraction, PCB	Completed			3550B	08/30/11 13:04	ADB		
Mercury Digestion	Completed			7471A	08/30/11 12:00	JRH		
Metal Digestion	Completed			3050B	08/31/11 11:00	PER		
Inorganics								
Total Solids	87	%	1	Std M 2540 B	08/29/11 14:15	DJS		
Metals								
Antimony	Not detected	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-36-0	
Arsenic	0.72	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-38-2	
Barium	21.3	mg/kg	1.3	6020	08/31/11 17:15	PER	7440-39-3	
Beryllium	0.15	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-41-7	
Boron	Not detected	mg/kg	5.02	6020	09/01/11 14:31	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-43-9	
Chromium	2.61	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-47-3	
Cobalt	2.29	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-48-4	
Copper	5.57	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-50-8	
Lead	3.66	mg/kg	0.13	6020	08/31/11 17:15	PER	7439-92-1	
Manganese	245	mg/kg	0.13	6020	08/31/11 17:15	PER	7439-96-5	
Mercury	0.0094	mg/kg	0.0058	7471A	08/30/11 16:10	JRT	7439-97-6	
Nickel	7.63	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-02-0	
Selenium	0.22	mg/kg	0.13	6020	08/31/11 17:15	PER	7782-49-2	
Silver	Not detected	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-22-4	
Thallium	Not detected	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-28-0	
Vanadium	3.96	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-62-2	
Zinc	9.62	mg/kg	0.13	6020	08/31/11 17:15	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11104-28-2	

Lab Sample ID: S49839.02 (continued)
Sample Tag: P2-SB-30(14-15')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - PCBs/Pesticides (continued)								
TCL PCB List (Column 2) (continued)								
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:25	JANB	11096-82-5	
Organics - Semi-Volatiles								
TCL Semi-Volatile Organics								
Acenaphthene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	208-96-8	
Acetophenone	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	98-86-2	
Anthracene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	120-12-7	
Atrazine	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	1912-24-9	
1,1'-Biphenyl	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	92-52-4	
4-Bromophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	101-55-3	
di-n-Butyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 19:23	PL	84-74-2	
Benzaldehyde	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	100-52-7	
Benzo(a)anthracene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	205-99-2	
Benzo(ghi)perylene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	191-24-2	
Benzo(k)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	207-08-9	
Butyl benzyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	91-58-7	
2-Chlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	95-57-8	
4-Chloro-3-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	59-50-7	
4-Chloroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	106-47-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	7005-72-3	
Caprolactam	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	105-60-2	
Carbazole	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	86-74-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	108-60-1	
Chrysene	Not detected	ug/kg	80	8270C	09/07/11 19:23	PL	218-01-9	
2,4-Dichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	120-83-2	
2,4-Dimethylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	606-20-2	
3,3'-Dichlorobenzidine	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	91-94-1	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	534-52-1	
Dibenzo(ah)anthracene	Not detected	ug/kg	80	8270C	09/07/11 19:23	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	132-64-9	
Diethyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 19:23	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/kg	80	8270C	09/07/11 19:23	PL	131-11-3	
bis(2-Ethylhexyl)phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	117-81-7	
Fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	206-44-0	
Fluorene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	87-68-3	

Lab Sample ID: S49839.02 (continued)
Sample Tag: P2-SB-30(14-15')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
TCL Semi-Volatile Organics (continued)								
Hexachlorocyclopentadiene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	193-39-5	
Isophorone	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	91-57-6	
2-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	95-48-7	
3-, 4-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	3/4-Cresol	
2-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	88-74-4	
2-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	88-75-5	
3-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	100-01-6	
4-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	100-02-7	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	621-64-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	86-30-6	
Naphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	91-20-3	
Nitrobenzene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	98-95-3	
di-n-Octyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	117-84-0	
Pentachlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	85-01-8	
Phenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	108-95-2	
Pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	129-00-0	
2,4,5-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:23	PL	88-06-2	
Organics - Volatiles								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	3	8260B - SIM	08/30/11 17:40	JGH	96-12-8	
1,2-Dibromoethane	Not detected	ug/kg	1	8260B - SIM	08/30/11 17:40	JGH	106-93-4	
1,4-Dioxane	Not detected	ug/kg	300	8260B	08/30/11 17:40	WAT	123-91-1	
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	76-13-1	
Acetone	Not detected	ug/kg	640	5035/8260B	08/31/11 20:30	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	640	5035/8260B	08/31/11 20:30	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	640	5035/8260B	08/31/11 20:30	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	67-66-3	
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	71-55-6	

Lab Sample ID: S49839.02 (continued)
Sample Tag: P2-SB-30(14-15')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	640	5035/8260B	08/31/11 20:30	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	640	5035/8260B	08/31/11 20:30	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/31/11 20:30	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:30	WAT	120-82-1	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S49839.03
Sample Tag: P2-SB-17(4-5')082611
Collected Date/Time: 08/26/2011 14:30
Matrix: Soil
COC Reference: 16137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.0	IR
1	40ml Glass	MeOH	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/31/11 23:59	EMR		
Extraction, PCB	Completed			3550B	08/30/11 13:04	ADB		
Mercury Digestion	Completed			7471A	08/30/11 12:00	JRH		
Metal Digestion	Completed			3050B	08/31/11 11:00	PER		
Inorganics								
Total Solids	89	%	1	Std M 2540 B	08/29/11 14:15	DJS		
Metals								
Antimony	Not detected	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-36-0	
Arsenic	1.31	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-38-2	
Barium	16.8	mg/kg	1.2	6020	08/31/11 17:17	PER	7440-39-3	
Beryllium	0.15	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-41-7	
Boron	Not detected	mg/kg	4.94	6020	09/01/11 14:32	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-43-9	
Chromium	2.83	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-47-3	
Cobalt	3.20	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-48-4	
Copper	9.48	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-50-8	
Lead	4.67	mg/kg	0.12	6020	08/31/11 17:17	PER	7439-92-1	
Manganese	261	mg/kg	0.12	6020	08/31/11 17:17	PER	7439-96-5	
Mercury	0.0089	mg/kg	0.0056	7471A	08/30/11 16:12	JRT	7439-97-6	
Nickel	10.2	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-02-0	
Selenium	0.26	mg/kg	0.12	6020	08/31/11 17:17	PER	7782-49-2	
Silver	Not detected	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-22-4	
Thallium	Not detected	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-28-0	
Vanadium	4.83	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-62-2	
Zinc	12.4	mg/kg	0.12	6020	08/31/11 17:17	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11104-28-2	

Lab Sample ID: S49839.03 (continued)
Sample Tag: P2-SB-17(4-5')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - PCBs/Pesticides (continued)								
TCL PCB List (Column 2) (continued)								
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:36	JANB	11096-82-5	
Organics - Semi-Volatiles								
TCL Semi-Volatile Organics								
Acenaphthene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	208-96-8	
Acetophenone	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	98-86-2	
Anthracene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	120-12-7	
Atrazine	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	1912-24-9	
1,1'-Biphenyl	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	92-52-4	
4-Bromophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	101-55-3	
di-n-Butyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 19:56	PL	84-74-2	
Benzaldehyde	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	100-52-7	
Benzo(a)anthracene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	205-99-2	
Benzo(ghi)perylene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	191-24-2	
Benzo(k)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	207-08-9	
Butyl benzyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	91-58-7	
2-Chlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	95-57-8	
4-Chloro-3-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	59-50-7	
4-Chloroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	106-47-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	7005-72-3	
Caprolactam	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	105-60-2	
Carbazole	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	86-74-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	108-60-1	
Chrysene	Not detected	ug/kg	70	8270C	09/07/11 19:56	PL	218-01-9	
2,4-Dichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	120-83-2	
2,4-Dimethylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	606-20-2	
3,3'-Dichlorobenzidine	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	91-94-1	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	534-52-1	
Dibenzo(ah)anthracene	Not detected	ug/kg	70	8270C	09/07/11 19:56	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	132-64-9	
Diethyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 19:56	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 19:56	PL	131-11-3	
bis(2-Ethylhexyl)phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	117-81-7	
Fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	206-44-0	
Fluorene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	87-68-3	

Lab Sample ID: S49839.03 (continued)
Sample Tag: P2-SB-17(4-5')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
TCL Semi-Volatile Organics (continued)								
Hexachlorocyclopentadiene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	193-39-5	
Isophorone	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	91-57-6	
2-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	95-48-7	
3-, 4-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	3/4-Cresol	
2-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	88-74-4	
2-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	88-75-5	
3-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	100-01-6	
4-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	100-02-7	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	621-64-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	86-30-6	
Naphthalene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	91-20-3	
Nitrobenzene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	98-95-3	
di-n-Octyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	117-84-0	
Pentachlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	85-01-8	
Phenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	108-95-2	
Pyrene	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	129-00-0	
2,4,5-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 19:56	PL	88-06-2	
Organics - Volatiles								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	3	8260B - SIM	08/30/11 17:58	JGH	96-12-8	
1,2-Dibromoethane	Not detected	ug/kg	1	8260B - SIM	08/30/11 17:58	JGH	106-93-4	
1,4-Dioxane	Not detected	ug/kg	300	8260B	08/30/11 17:58	WAT	123-91-1	
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	76-13-1	
Acetone	Not detected	ug/kg	640	5035/8260B	08/31/11 20:48	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	640	5035/8260B	08/31/11 20:48	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	640	5035/8260B	08/31/11 20:48	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	67-66-3	
1,1,1-Trichloroethane	510	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	71-55-6	

Lab Sample ID: S49839.03 (continued)
Sample Tag: P2-SB-17(4-5')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	640	5035/8260B	08/31/11 20:48	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	640	5035/8260B	08/31/11 20:48	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/31/11 20:48	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 20:48	WAT	120-82-1	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S49839.04
Sample Tag: P2-SB-17(9-10')082611
Collected Date/Time: 08/26/2011 14:40
Matrix: Soil
COC Reference: 16137

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.0	IR
1	40ml Glass	MeOH	Yes	4.0	IR

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3550B	08/31/11 23:59	EMR		
Extraction, PCB	Completed			3550B	08/30/11 13:04	ADB		
Mercury Digestion	Completed			7471A	08/30/11 12:00	JRH		
Metal Digestion	Completed			3050B	08/31/11 11:00	PER		
Inorganics								
Total Solids	90	%	1	Std M 2540 B	08/29/11 14:15	DJS		
Metals								
Antimony	Not detected	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-36-0	
Arsenic	0.71	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-38-2	
Barium	29.5	mg/kg	1.2	6020	08/31/11 17:20	PER	7440-39-3	
Beryllium	0.15	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-41-7	
Boron	Not detected	mg/kg	4.72	6020	09/01/11 14:33	PER	7440-42-8	
Cadmium	Not detected	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-43-9	
Chromium	2.03	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-47-3	
Cobalt	2.24	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-48-4	
Copper	10.6	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-50-8	
Lead	4.53	mg/kg	0.12	6020	08/31/11 17:20	PER	7439-92-1	
Manganese	235	mg/kg	0.12	6020	08/31/11 17:20	PER	7439-96-5	
Mercury	0.0083	mg/kg	0.0055	7471A	08/30/11 16:14	JRT	7439-97-6	
Nickel	6.89	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-02-0	
Selenium	Not detected	mg/kg	0.12	6020	08/31/11 17:20	PER	7782-49-2	
Silver	Not detected	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-22-4	
Thallium	Not detected	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-28-0	
Vanadium	3.90	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-62-2	
Zinc	13.2	mg/kg	0.12	6020	08/31/11 17:20	PER	7440-66-6	
Organics - PCBs/Pesticides								
TCL PCB List (Column 1)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11104-28-2	
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11096-82-5	
TCL PCB List (Column 2)								
PCB-1016	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	12674-11-2	
PCB-1242	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	53469-21-9	
PCB-1221	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11104-28-2	

Lab Sample ID: S49839.04 (continued)
Sample Tag: P2-SB-17(9-10')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - PCBs/Pesticides (continued)								
TCL PCB List (Column 2) (continued)								
PCB-1232	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11141-16-5	
PCB-1248	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	12672-29-6	
PCB-1254	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11097-69-1	
PCB-1260	Not detected	ug/kg	3	8082	08/30/11 15:46	JANB	11096-82-5	
Organics - Semi-Volatiles								
TCL Semi-Volatile Organics								
Acenaphthene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	83-32-9	
Acenaphthylene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	208-96-8	
Acetophenone	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	98-86-2	
Anthracene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	120-12-7	
Atrazine	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	1912-24-9	
1,1'-Biphenyl	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	92-52-4	
4-Bromophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	101-55-3	
di-n-Butyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 20:29	PL	84-74-2	
Benzaldehyde	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	100-52-7	
Benzo(a)anthracene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	56-55-3	
Benzo(a)pyrene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	50-32-8	
Benzo(b)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	205-99-2	
Benzo(ghi)perylene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	191-24-2	
Benzo(k)fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	207-08-9	
Butyl benzyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	85-68-7	
2-Chloronaphthalene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	91-58-7	
2-Chlorophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	95-57-8	
4-Chloro-3-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	59-50-7	
4-Chloroaniline	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	106-47-8	
4-Chlorophenyl phenyl ether	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	7005-72-3	
Caprolactam	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	105-60-2	
Carbazole	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	86-74-8	
bis(2-Chloroethoxy)methane	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	108-60-1	
Chrysene	Not detected	ug/kg	70	8270C	09/07/11 20:29	PL	218-01-9	
2,4-Dichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	120-83-2	
2,4-Dimethylphenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	105-67-9	
2,4-Dinitrophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	606-20-2	
3,3'-Dichlorobenzidine	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	91-94-1	
4,6-Dinitro-2-methylphenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	534-52-1	
Dibenzo(ah)anthracene	Not detected	ug/kg	70	8270C	09/07/11 20:29	PL	53-70-3	
Dibenzofuran	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	132-64-9	
Diethyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 20:29	PL	84-66-2	
Dimethyl phthalate	Not detected	ug/kg	70	8270C	09/07/11 20:29	PL	131-11-3	
bis(2-Ethylhexyl)phthalate	60	ug/kg	40	8270C	09/07/11 20:29	PL	117-81-7	
Fluoranthene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	206-44-0	
Fluorene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	86-73-7	
Hexachlorobenzene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	118-74-1	
Hexachlorobutadiene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	87-68-3	

Lab Sample ID: S49839.04 (continued)
Sample Tag: P2-SB-17(9-10')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Semi-Volatiles (continued)								
TCL Semi-Volatile Organics (continued)								
Hexachlorocyclopentadiene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	77-47-4	
Hexachloroethane	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	193-39-5	
Isophorone	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	78-59-1	
2-Methylnaphthalene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	91-57-6	
2-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	95-48-7	
3-, 4-Methylphenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	3/4-Cresol	
2-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	88-74-4	
2-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	88-75-5	
3-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	99-09-2	
4-Nitroaniline	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	100-01-6	
4-Nitrophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	100-02-7	
N-Nitrosodi-n-propylamine	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	621-64-7	
N-Nitrosodiphenylamine	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	86-30-6	
Naphthalene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	91-20-3	
Nitrobenzene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	98-95-3	
di-n-Octyl phthalate	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	117-84-0	
Pentachlorophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	87-86-5	
Phenanthrene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	85-01-8	
Phenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	108-95-2	
Pyrene	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	129-00-0	
2,4,5-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/kg	40	8270C	09/07/11 20:29	PL	88-06-2	
Organics - Volatiles								
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	3	8260B - SIM	08/30/11 18:17	JGH	96-12-8	
1,2-Dibromoethane	Not detected	ug/kg	3 J	8260B - SIM	08/30/11 18:17	JGH	106-93-4	X
1,4-Dioxane	Not detected	ug/kg	300	8260B	08/30/11 18:17	WAT	123-91-1	
TCL Volatile Organics HighLevl 5035/8260								
1,1,2-Trichloro-1,2,2-trifluoroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	76-13-1	
Acetone	Not detected	ug/kg	620	5035/8260B	08/31/11 21:06	WAT	67-64-1	
Carbon disulfide	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-15-0	
Methyl Acetate	Not detected	ug/kg	620	5035/8260B	08/31/11 21:06	WAT	79-20-9	
tert-Methyl butyl ether (MTBE)	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	1634-04-4	
2-Butanone (MEK)	Not detected	ug/kg	620	5035/8260B	08/31/11 21:06	WAT	78-93-3	
Dichlorodifluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-71-8	
Chloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	74-87-3	
Vinyl chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-01-4	
Bromomethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	74-83-9	
Chloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-00-3	
Trichlorofluoromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-69-4	
1,1-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-35-4	
Methylene chloride	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-09-2	
trans-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	156-60-5	
1,1-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-34-3	
cis-1,2-Dichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	156-59-2	
Chloroform	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	67-66-3	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S49839.04 (continued)
Sample Tag: P2-SB-17(9-10')082611

Analysis	Results	Units	RL	Method	Run Date/Time	Analyst	CAS #	Flags
Organics - Volatiles (continued)								
TCL Volatile Organics HighLevl 5035/8260 (continued)								
1,1,1-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	71-55-6	
Cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	110-82-7	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/kg	620	5035/8260B	08/31/11 21:06	WAT	108-10-1	
2-Hexanone	Not detected	ug/kg	620	5035/8260B	08/31/11 21:06	WAT	591-78-6	
Carbon tetrachloride	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	56-23-5	
Benzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	71-43-2	
1,2-Dichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	107-06-2	
Trichloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	79-01-6	
1,2-Dichloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	78-87-5	
Bromodichloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-27-4	
Methyl cyclohexane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	108-87-2	
cis-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	10061-01-5	
Toluene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	108-88-3	
trans-1,3-Dichloropropene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	10061-02-6	
1,1,2-Trichloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	79-00-5	
Tetrachloroethene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	127-18-4	
Dibromochloromethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	124-48-1	
1,2-Dibromoethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	106-93-4	
Chlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	108-90-7	
1,1,2,2-Tetrachloroethane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	79-34-5	
Ethylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	100-41-4	
p,m-Xylene	Not detected	ug/kg	100	5035/8260B	08/31/11 21:06	WAT		
o-Xylene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	95-47-6	
Styrene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	100-42-5	
Isopropylbenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	98-82-8	
Bromoform	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	75-25-2	
1,3-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	106-46-7	
1,2-Dichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	95-50-1	
1,2-Dibromo-3-chloropropane	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	96-12-8	
1,2,4-Trichlorobenzene	Not detected	ug/kg	60	5035/8260B	08/31/11 21:06	WAT	120-82-1	

ARCADIS
Infrastructure, environment, buildings

ID#: 16137

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page ___ of ___

Lab Work Order #

Send Results To

Contact & Company Name: Randy Christensen/ Arcadis
Telephone: 810-225-1940
Address: 10559 Citation Dr., Suite 100
Fax:
City: Brighton State: MI Zip: 48116
E-mail Address: Randy.Christensen@Arcadis-us.com
Project Name/Location (City, State): Plant 2 Lansing, MI
Project #: B006479.2011
Sampler's Printed Name: Austin Westhuis
Sampler's Signature:

Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	TCL VOCs	1,4-dioxane	TCL SVOCs	TAL Metals	Boron	PCBs	Cyanide	Cr+6	REMARKS
49839.01 P2-SB-30(3-4')082611	8/26/11	1350		✓	SO	✓	✓	✓	✓		✓			
.02 P2-SB-30(14-15')082611	8/26/11	1400		✓	SO	✓	✓	✓	✓		✓			
.03 P2-SB-17(4-5')082611	8/26/11	1430		✓	SO	✓	✓	✓	✓		✓			
.04 P2-SB-17(19-20')082611		1440		✓	SO	✓	✓	✓	✓		✓			

Preservative
Filtered (✓)
# of Containers
Container Information

PARAMETER ANALYSIS & METHOD

Keys

Preservation Key: A. H_2SO_4 B. HCL C. HNO_3 D. NaOH E. None F. Other: G. Other: H. Other:

Container Information Key: 1. 40 ml Vial 2. 1 L Amber 3. 250 ml Plastic 4. 500 ml Plastic 5. Encore 6. 2 oz. Glass 7. 4 oz. Glass 8. 8 oz. Glass 9. Other: 10. Other:

Matrix Key: SO - Soil SE - Sediment NL - NAPL/Oil W - Water SL - Sludge SW - Sample Wipe T - Tissue A - Air Other:

Special Instructions/Comments:

Deliverables Required: EDD

☐ Special QA/QC Instructions(✓):

QC Level II

P.O. # MLT-1300-1

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name: Merit	Cooler Custody Seal (✓)	Printed Name: Austin Westhuis	Printed Name: Tim Glos	Printed Name:	Printed Name: Paula Shaw
☒ Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature:	Signature:	Signature:	Signature:
Specify Turnaround Requirements: Standard	Sample Receipt:	Firm: Arcadis	Firm/Courier: Merit	Firm/Courier:	Firm: Merit
Shipping Tracking #:	Condition/Cooler Temp: 4.0	Date/Time: 8-26-11 3PM	Date/Time: 8-26-11 3PM	Date/Time:	Date/Time: 8-26-11 1530

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS