

March 23, 2015

Stora Enso C/O
John T. Kolaga, Esq.
Damon Morey LLP
The Avant Building –Suite 1200
220 Delaware Avenue
Buffalo, New York 14202-2150

**RE: IN-SITU BIOREMEDIATION MONITORING REPORT NO. 2,
VAILS GATE MANUFACTURING, LLC, VAILS GATE,
NEW YORK, NYSDEC SITE NO. 336065**

Dear Mr. Kolaga:

Leader Consulting Services, Inc. (“Leader”) is pleased to provide Damon Morey LLP (“Damon Morey”), on behalf of Stora Enso, with this report summarizing the results of the In-Situ Bioremediation Quarterly Monitoring completed at the former Vails Gate Manufacturing facility (“VGM”) at 1073 Route 94 in Vails Gate, New York (hereafter referred to as “the Site”). The Site is currently identified as the Vails Gate Business Center (“VGBC”). This is the second Quarterly Monitoring Report required under the Remedial Action Work Plan (“RAWP”). It includes the field and laboratory results from the second quarterly sampling event.

1.0 BACKGROUND AND PURPOSE

Leader was retained by Damon Morey to implement the New York State Department of Environmental Conservation (“NYSDEC”)-approved RAWP that was developed for Area of Concern 6 (“AOC 6”) at the Site. In-situ bioremediation was the selected remedial alternative identified in the NYSDEC-approved Corrective Measure Study (“CMS”). The Site-specific Standards, Criteria and Guidance (“SCGs”) applicable to the RAWP were developed to meet the Remedial Action Objectives (“RAOs”) of the CMS. An “unrestricted use remedy” has been established for the Site, which is based on the regulatory standard values for Class GA groundwater identified in 6 NYCRR Part 703.5. The RAWP has been developed to address the SCGs and RAOs for the Site. The RAWP has been implemented in accordance with NYSDEC Department of Environmental Remediation (“DER”) Guidance Document DER-10, *Technical Guidance for Site Investigation and Remediation*.

2.0 SCOPE-OF-WORK

The scope of work for the In-Situ Bioremediation program identified in the RAWP was based on the March 2012 Phase II RCRA Facility Investigation (“RFI”) and the 2013 CMS. Quarterly sampling and laboratory analyses of groundwater samples from four (4) groundwater monitoring wells (MW-14, MW-5A/AR, MW-16 and MW-CHA-RFI-7) are required per the RAWP.

Included in this report are the second quarterly sampling event Analytical Laboratory Results and Summary Tables (Attachment A) and Data Validation Summary (Attachment B).

3.0 QUARTERLY SAMPLING PROGRAM

The second quarterly sampling event of the bioremediation program was conducted on February 10, 2015. The laboratory parameters for the quarterly samples included analysis for volatile organic compounds (“VOCs”), sulfate, total organic carbon (“TOC”), and dissolved iron. The field parameters included dissolved oxygen (“DO”), pH, oxidation reduction potential (“redox”), temperature and turbidity. Laboratory and field data were reviewed to evaluate VOC concentrations and field data parameters from groundwater samples from each of the wells to assess the impact of biotreatment activity within AOC 6.

4.0 FIELD AND LABORATORY GROUNDWATER SAMPLE RESULTS

4.1 GROUNDWATER SAMPLE FIELD DATA RESULTS

The DO concentrations within the samples collected from the four (4) wells ranged from 1,720 parts per billion (“ppb”) to 2,750 ppb. The pH levels within the samples collected from the four (4) wells ranged from 6.74 standard units (“SUs”) to 7.55SUs. Redox values of the samples collected from the four (4) wells ranged from -42 milliVolts (“mVs”) to 73 mVs. Data interpretation is discussed in Section 4.0.

4.2 GROUNDWATER SAMPLE LABORATORY ANALYTICAL DATA RESULTS

GWM Well MW-5A/AR

Acetone was detected within the 2nd Quarter sample from MW-5A/AR at a concentration of 407 ppb, in excess of the NYSDEC Class GA standard of 50 ppb. Chloroethane concentrations increased from an estimated 590 ppb in November 2014 to a value of 1010 ppb in February 2015. 1,1- dichloroethane increased from 110 ppb in November to 325 ppb in February. 1,1- dichloroethene increased from a non-detect value in November to 8.62 ppb in February. 1,1,1-trichloroethane concentrations increased from 33 ppb in November to 200 ppb in February. Vinyl chloride decreased from an estimated value of 6 ppb in November to 3.59 ppb in February. 2-butanone (aka methyl ethyl ketone) concentrations decreased from an estimated value of 190 ppb in November to 82.1 ppb in February. 4-methyl-2-pentanone concentrations decreased from an estimated value of 3ppb in November to non-detect in February. 1,2-dichloroethane concentrations decreased from an estmated value of 2 ppb in November to non-detect in February. Each of the detected analyte concentrations from the February 2015 sample from GWM Well 5A/AR were above the NYSDEC Class GA groundwater standards.

GWM Well MW-14

Acetone was detected within the 2nd Quarter sample from MW-14, representing an increase from a non-detect value in November 2014, to 27.3 ppb in February 2015. 1,1-dichloroethane increased from and estimated value of 1 ppb in November to 43 ppb in February. 1,1-dichloroethene concentrations remained similar with an estimated value of 2 ppb in November and 3.51 ppb in February. Vinyl chloride concentrations remained similar with an estimated value of 2 ppb in November, and 2.79 ppb in February. 2-butanone concentrations decrease slightly, from and estimated value of 3ppb in November to non-detect in February. The remaining VOC analytes were not detected within the February 2015 sample. The analyte concentrations of 1,1-dichloroethane and vinyl chloride from the February 2015 samples from GWM Well MW-14 were the only VOCs above the NYSDEC Class GA groundwater standards.

GWM Well MW-16

1,1-dichloroethane was detected within the 2nd Quarter sample from MW-16, representing a decrease from the November 2014 value of 19 ppb, to 7.18 ppb in February 2015. 1,1-dichloroethene concentrations decreased from an estimated value of 9 ppb in November to 1.73 ppb in February. Tetrachloroethene concentrations decreased slightly, with estimated value of 3 ppb in November to 1.42 ppb in February. 1,1,1-trichloroethane concentrations remained similar with an estimated values of 2 ppb in November, and non-detect in February. Trichloroethene concentrations decreased from an estimated value of 3ppb in November to non-detect in February. Chloroform was detected for the first time within the sample collected from MW-16. The concentration of chloroform was 1.85 ppb from the February 2015 sample. The remaining VOC analytes were not detected within the February 2015 sample from MW-16. The concentration of 1,1-dichloroethane was the only VOC above the NYSDEC Class GA groundwater standard of 5 ppb.

GWM Well MW-CHA-RFI-7

All VOC concentrations from the sample collected from MW-CHA-RFI-7 during the February 2015 sampling event were non-detectable, as they were for the November 2014 sampling event.

5.0 DATA INTERPRETATION

5.1 FIELD DATA

TOC concentrations remain high in monitoring wells MW-5A/AR and MW-14, indicating continuing microbial activity. Groundwater pH levels indicate an environment conducive to continued microbial activity. Though not fluctuating significantly since media injection, the redox values indicate that reducing conditions exist for dechlorination.

5.2 LABORATORY DATA

Dissolved iron and sulfate concentrations are within ranges to support dechlorination. Additionally, the fluctuation of contaminant levels that appears to be occurring is normal during this phase the bioremediation process. Monitoring well MW-5A/AR would most likely be the well providing the greatest indication of VOC bioremediation activity. The increase in cloroethane concentrations from this well is most likely the result of biodegradation of 1,1,1 trichloroethane. The increase in concentrations of acetone and 2-butanone within monitoring well MW-5A/AR are most likely resulting from the fermentation of the 3dme/HRC. Acetone and 2-butanone will likely degrade over time; however, indicate microbial activity is occurring.

With the exception of 1,1-dichloroethane and vinyl chloride, the concentrations of each of the detected VOCs within the sample from MW-14 during the February 2015 sampling event are currently below the NYSDEC Class GA groundwater standard.

The concentration of 1,1-dichloroethane within the sample collected from MW-16 during the February 2015 sample event (7.18 ppb) is only slightly higher than the Class GA groundwater standard of 5 ppb. The remaining detected analytes are below the Class GA groundwater standards.

Future VOC monitoring data is expected to provide further indication of microbial activity.

If you need any additional information, please contact the undersigned at (716) 565-0963.

Very truly yours,

Leader Consulting Services, Inc.



Keith D. Keller
Project Manager



Jeffrey A. Wittlinger, P.E., BCEE
Principal



Attachment A

Analytical Laboratory Results and Summary Tables

TABLE 1

GROUNDWATER MONITORING WELL SAMPLE LABORATORY ANALYTICAL DATA SUMMARY - DETECTED PARAMETERS

NOTES:

(1) All analyte values expressed as parts per billion ("ppb").

(2) The analyte was "J" flagged, indicating that it was detected below the laboratory quantification limits, and should be considered estimated.

(3) Standard is identified in 6 NYCRR, Part 703.5, Table 1, Water Quality Standards Surface Waters and Groundwater.

(4) Standard is not identified in 6 NYCRR, Part 703.5, Table 1. NYSDEC TOGS 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations has been used.

(5) Analyte Standard does not exist in Part 703.5, Table 1. Analyte is identified in TOGS 1.1.1, Table 3 as unregulated.

(6) Sampling date of August 11, 2014, reflects pre-bioremediation injection date.

(7) November 2014 sampling event reflects first post-bioremediation data.

(8) The analyte was "B" flagged, indicating that it was detected in the laboratory method blank, and should be considered estimated.

(9) The analyte was "E" flagged, indicating that the concentration exceeded the calibration range of the laboratory instrument, and should be considered an estimate.

(10) The analyte was "Z" flagged, indicating that it did not meet the variability criteria for the continuous calibration.

(3) - The analyte was 'E' flagged, indicating that it did NOT meet the variability criteria for the continuous ND - Analyte was not detected above analytical laboratory detection limits.

ND - Analyte was not detected above analytical laboratory detection limits.
NA - Contaminant was not included for analysis during REI.

A value identified in red indicates a concentration of the analyte in excess of the 6 NYCRR, Part 703.5 Table 1 standard or NYSDEC TOGS 1.1.

A value identified in red indicates a concentration of the analyte in excess.

TABLE 2
GROUNDWATER MONITORING WELL SAMPLE FIELD DATA

Analyte	MW-5A/AR			MW-14			MW-16			MW-CHA-RFI-7		
	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015	August 2014 ⁽⁴⁾	November 2014 ⁽⁵⁾	February 2015
dissolved oxygen ⁽¹⁾	1,150	1,860	1,910	1,940	2,110	1,720	990	2,210	2,750	1,440	1,220	1,760
pH ⁽²⁾	7.66	7.07	6.74	7.19	7.41	6.98	7.12	6.86	6.94	7.55	7.38	7.55
redox ⁽³⁾	-137	-90	-42	7	-1	47	24	-14	12	-36	-1	73

NOTES:

(1) Value expressed as parts per billion ("ppb").

(2) Value expressed as Standard Unit.

(3) Value expressed as milliVolts (mV).

(4) Sampling date of August 11, 2014, reflects pre-bioremediation injection date of August 13 and 14, 2014.

(5) November 2014 sampling event reflects first post-bioremediation data.



Pace Analytical e-Report

*Issuance of this report is prior to full data package.

Report prepared for:

Leader Consulting Services, Inc.
2813 Wehrle Drive
Suite 1
Williamsville, NY 14221
CONTACT: Keith Keller

Project ID: VAILS GATE MANUFACTURING

Sampling Date(s): February 10, 2015

Lab Report ID: 15020213

Client Service Contact: Nick Nicholas (518) 346-4592

Analysis Included:

VOCs by GCMS
Metals by ICP (Custom)
Misc Field Analysis
Total Organic Carbon
Sulfate - Sub

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within the document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

A handwritten signature in black ink, appearing to read "Roy Smith, Jr." or "Roy Smith".

Roy Smith
Technical Director



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337),
Massachusetts (M-NY906), Virginia (1884)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308
Phone: 518.346.4592 | internet: www.pacelabs.com

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QUALIFIERS

Definitions

B - Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.

D - Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.

E - Denotes analyte concentration exceeded calibration range of instrument. Sample could not be re-analyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.

J - Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

MDL – Method Detection Limit. Denotes lowest analyte concentration observable for the sample based on statistical study.

P - Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.

PQL – Practical Quantitation Limit. Denotes lowest analyte concentration reportable for the sample.

U - Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL). PQLs are adjusted for sample weight/volume and dilution factors.

Z - Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.

* - Value not within control limits.

SAMPLE CHAIN OF CUSTODY



New Yoi
2190 Te Schenec
150202131
(518) 34



<15020213P1>

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: Leader Professional Services	Report To: Keith Keller	Attention: Keith Keller
Address: 2813 Wehrle Drive, Suite 1 Williamsville, NY 14221	Copy To: na	Company Name: Leader Professional Services
Email To:	Purchase Order No.:	Address:
Phone: 716-565-0963 Fax: na	Project Name: Vails Gate Manufactu	Pace Project Manager: Nicholas Nicholas
Requested Due Date/TAT: Standard 2-Week		Pace Profile #:

ITEM #	Section D Required Client Information		SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE													
	MATRIX	Valid Matrix Codes	MATRIX CODE	SAMPLE TYPE	C-COMP	SAMPLE DATE	SAMPLE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						
	DRINKING WATER WATER WASTE WATER PRODUCT SUS-SOIL OIL WIPE AIR OTHER Tissue	DW WT WW P SS OIL WIPE AIR OTHER Tissue	G=GRAB						Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ SO ₃	Methanol	Other
1	Field Duplicate-01	WT	G	2/10/15	1040				7							x x x x x x x x
2	MW-5A/AR	WT	G	2/10/15	1042				7							x x x x x x x x
3	MW-14	WT	G	2/10/15	1130				7							x x x x x x x x
4	MW-16	WT	G	2/10/15	1115				7							x x x x x x x x
5	MW-CHA-RFI-7	WT	G	2/10/15	1430				7							x x x x x x x x
6	MW-CHA-RFI-7_MS	WT	G	2/10/15	1430				7							x x x x x x x x
7	MW-CHA-RFI-7_MSD	WT	G	2/10/15	1430				7							x x x x x x x x
8	Trip Blank-01	WT	G	2/10/15	-				2							x x
9		WT	G													
10		WT	G													
11		WT	G													
12		WT	G													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
NYSDEC DER-10 EQUIS EDD LAB FILTER METALS	MATC PACE	2/10/15	1635	MATC JDR	2/10/15	16:15	5.5CFR Y/N Y/N Y/N Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Matt Broker (PACE)

SIGNATURE of SAMPLER:

February 25, 2015

DATE Signed
(MM / DD / YY):

2/10/15

Page: 1 of 1

REGULATORY PROGRAM														
<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER												
<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> OTHER												
SITE				LOCATION										
New York State				Filtered (Y/N)										
				*Specify Metals/inorganics: Iron										
REQUESTED ANALYSES														
Dissolved Fe	Sulfate	Total Organic Carbon	8260 Full List	Field- DO, Conductivity	Temp, pH, Eh,	Turbidity								
Pace Laboratory I.D.														
AS03347														
AS03348														
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AS03498														
AS03499														
AS03500														
Temp in °C	Received on Ice	Custody Sealed	Samples Intact											

Pace An. **<15020213P2>**



Sample Condition Upon Receipt

COURIER: FedEx UPS Client Pace Other

TRACKING # _____

PACKING MATERIAL: Bubble Wrap Bubble Bags None Other

THERMOMETER USED: #164 IR Gun 03 #122087967

BIOLOGICAL TISSUE IS FROZEN: Yes No N/A

CUSTODY SEAL PRESENT: Yes

No INTACT: Yes No N/A

ICE USED: Wet Blue None

COOLER TEMPERATURE (°C): 5.5°C

Temp should be above freezing to 6°C

COMMENTS:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	3.
Sampler Name / Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	6. Dissolved Fe
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9.
- Pace Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers Intact:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12.
- Includes date/time/ID/Analysis			
All containers needing preservation have been checked:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
All containers needing preservation are in compliance with EPA recommendation:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
- Exceptions that are not checked: VOA			
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Trip Blank Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Pace Trip Blank Lot #: <u>020915</u>			

Sample Receipt form filled in: PAW 2/10/15

Line-Out (Includes Copying Shipping Documents and verifying sample pH):

PAW 2/10/15

Log In (Includes notifying PM of any discrepancies and documenting in LIMS):

PAW 2/10/15

Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

PAW 2/10/15

PACE Analytical Services, Inc. Ground water Field Log

Client:

Leader Consulting

Project:

Vallis Gate Manufacturing

Well ID.:

MW-CHA-RFI-7 MS/MSD

PACE ID

Condition of Well: _____

Good

Locked: _____

Yes

Method of Evacuation: _____

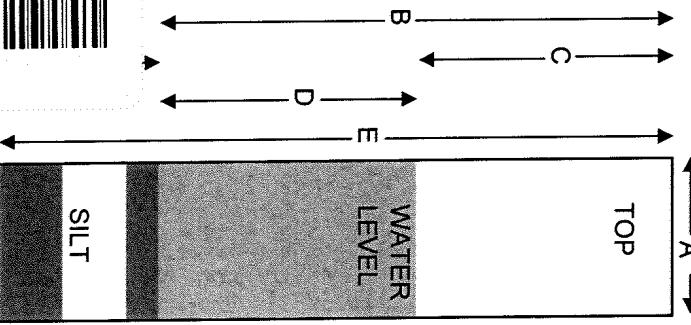
Peristaltic Pump

Lock ID: _____

Flush

Method of Sampling: _____

Peristaltic Pump



A. Diameter of Well 2.00 inches
 B. Well Depth Measured 41.67 feet
 C. Depth to Water 0.00 feet
 D. Length of Water Column (calculated) 41.67 feet

Conversion Factor

0.16

Well Volume (calculated)

6.67

No. of Volumes to be Evacuated

3

Total Volume to be Evacuated

20.01

Actual Volume Evacuated

15.00

Installed Well Depth (if known)

N/A

F. Depth of Silt (calculated)

N/A

feet

% Recharge:

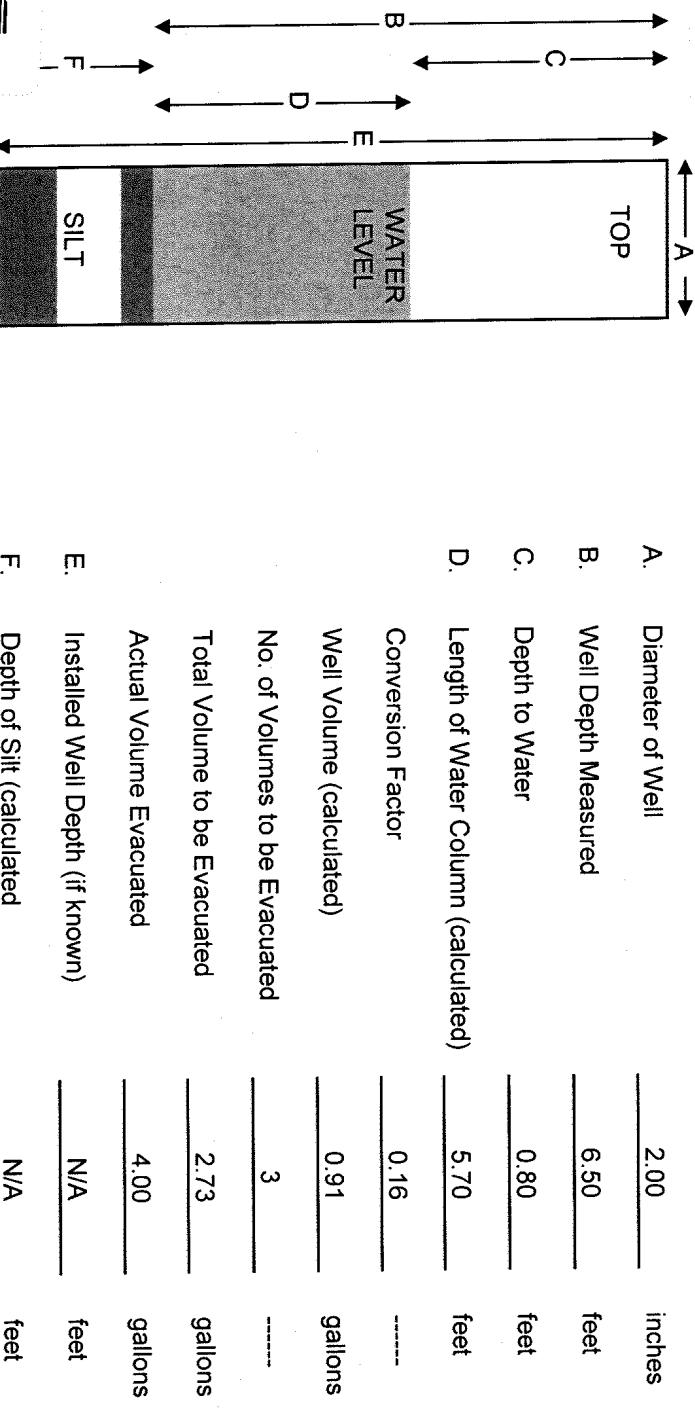
Initial Depth to Water 0 feetRecharge Depth to Water 15.01 feet2nd water column height _____%
1st water column height _____%Elevation(Top of Casing) N/A feetG.W. Elevation= N/A feet
G.W. Elevation = Top of Case Elev-Total DepthSampler: Matt BrokerSignature: Matt BrokerWeather: sample clearObservations: Installed dedicated tubing

15020213P3A

150202133

PACE Analytical Services, Inc. Ground water Field Log

Client: Leader Consulting PACE ID
 Project: Vails Gate Manufacturing
 Well ID.: MW-5A/AR Field Dupe 1

Condition of Well: GoodLocked: YesMethod of Evacuation: Peristaltic PumpLock ID: FlushMethod of Sampling: Peristaltic Pump

Components	Initial Evacuation	Final Sampling	% Recharge:
Time	<u>2/10/15</u>	<u>2/10/15</u>	Initial Depth to Water <u>0.8</u> feet
EH	<u>10:30</u>	<u>10:42</u>	Recharge Depth to Water <u>4.2</u> feet
Temperature	<u>-66</u>	<u>-42</u>	mV
pH	<u>7.2</u>	<u>6.1</u>	mV
Specific Cond.	<u>6.57</u>	<u>6.74</u>	C
Turbidity	<u>1672</u>	<u>1611</u>	2nd water column height %
Dissolved Oxygen	<u>2.61</u>	<u>75.7</u>	1st water column height
Appearance	<u>cloudy</u>	<u>1.91</u>	uS NTU
Weather:	<u>~ 3C sunny</u>		
Observations:	<u>Silty bottom thick grey while purging then cleared up</u>		
	Signature: <u>Matt Broker</u>		

PACE Analytical Services, Inc. Ground water Field Log

Client: Leader Consulting

Project: Vallis Gate Manufacturing

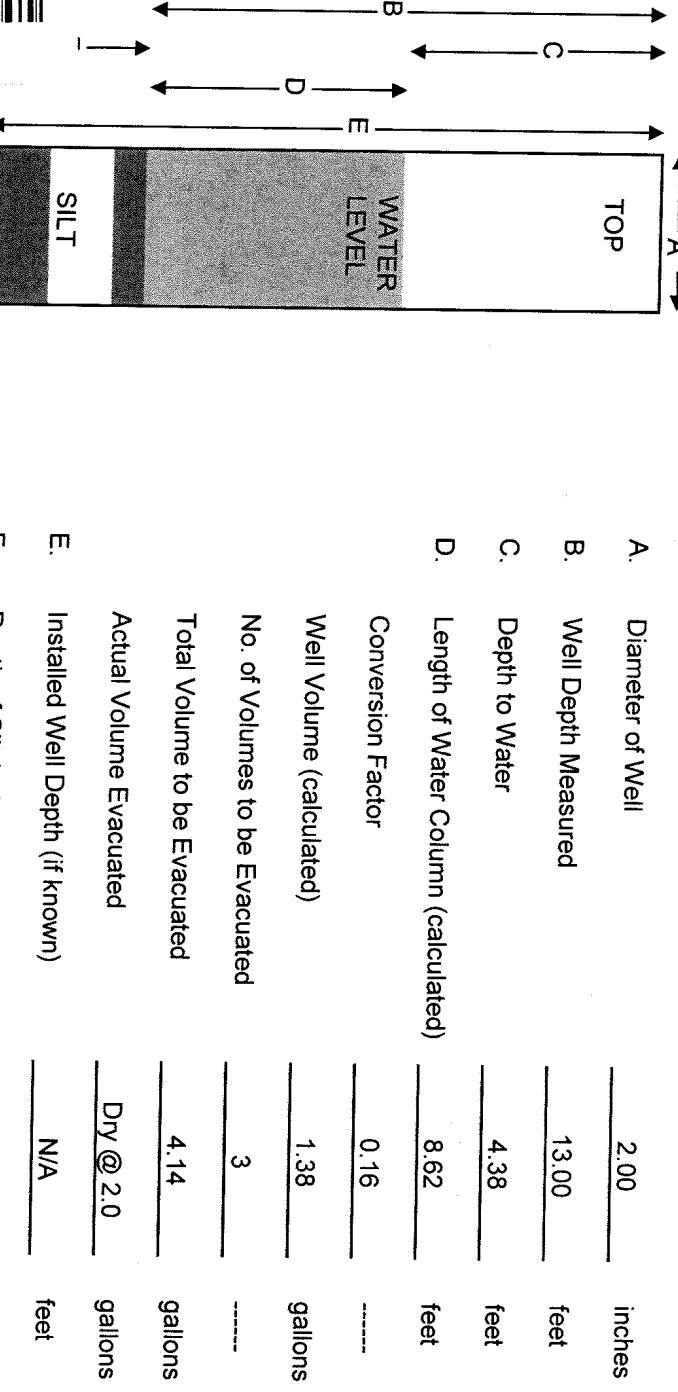
Well ID.: MW-14

PACE ID

Condition of Well: Good Locked: Yes

Method of Evacuation: Bailer Lock ID: Flush

Method of Sampling: Bailer



<15020213P5>

150202135

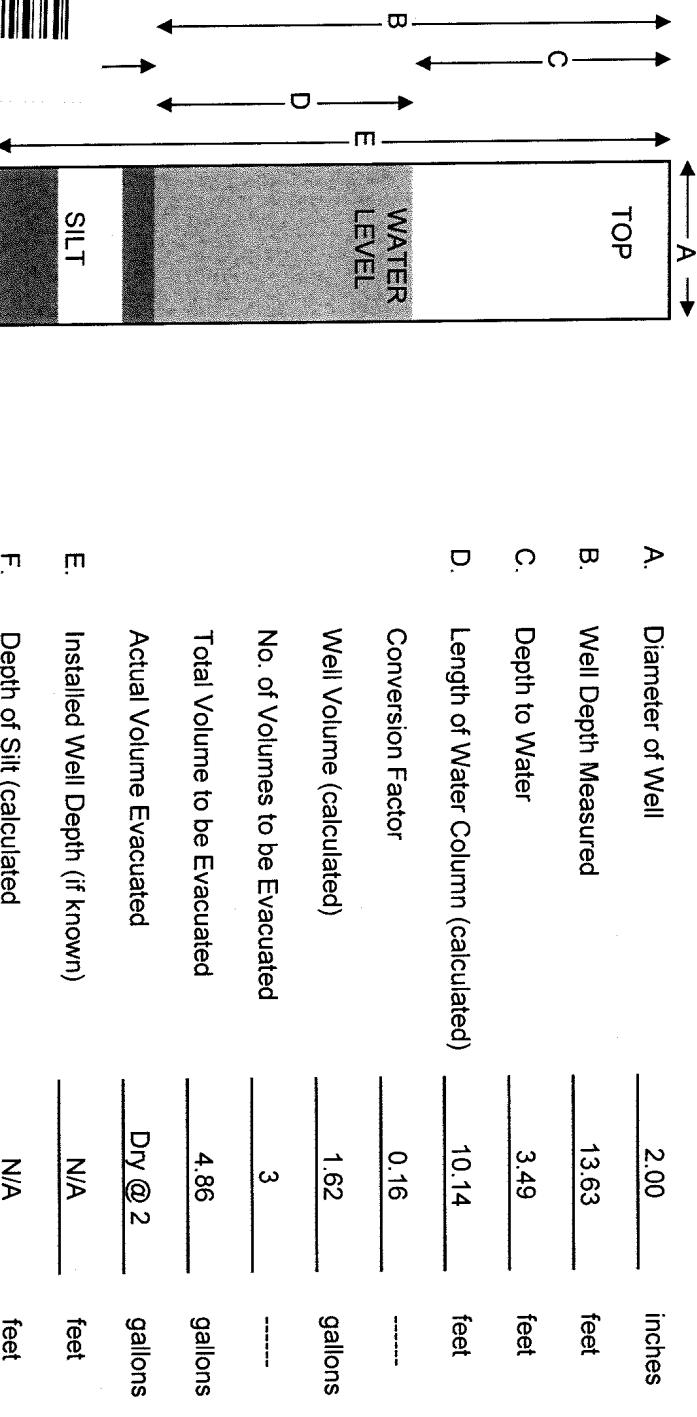
Initial Evacuation	Final Sampling	% Recharge:
Date Time	<u>2/10/15</u> <u>10:10</u>	Initial Depth to Water <u>4.38</u> feet
EH	<u>-38</u>	Recharge Depth to Water <u>9.38</u> feet
Temperature	<u>13.1</u>	2nd water column height <u>%</u>
pH	<u>6.27</u>	1st water column height <u>%</u>
Specific Cond.	<u>1742</u>	Elevation(Top of Casing) <u>N/A</u> feet
Turbidity	<u>56.8</u>	G.W. Elevation= <u>N/A</u> feet
Dissolved Oxygen	<u>2.06</u>	G.W.Elevation = Top of Case Elev - Total Depth
Appearance	<u>cloudy</u>	
Weather:	<u>>3C sunny</u>	
Observations:	<u>Well between piler 2 and 3 slow recharge</u> <u>Well located in Unit 4-5</u>	
	<u>Solar City John Larrauri 518-530-9279</u>	Sampler: <u>Matt Broker</u> Signature: <u>Matt Broker</u>

PACE Analytical Services, Inc. Ground water Field Log

2

Client: Leader Consulting
 Project: Vails Gate Manufacturing
 Well ID.: MW-16

PACE ID

Condition of Well: GoodLocked: YesMethod of Evacuation: Peristaltic PumpLock ID: FlushMethod of Sampling: Peristaltic Pump

<15020213P6>

150202136

Initial Events	Initial Evacuation	Final Sampling	% Recharge:
Date	<u>2/10/15</u>	<u>2/10/15</u>	Initial Depth to Water <u>3.49</u> feet
Time	<u>11:00</u>	<u>11:15</u>	Recharge Depth to Water <u>11.27</u> feet
EH	<u>-36</u>	<u>12</u>	mV
Temperature	<u>8.5</u>	<u>8.7</u>	2nd water column height %
pH	<u>6.85</u>	<u>6.94</u>	1st water column height %
Specific Cond.	<u>989.4</u>	<u>988.9</u>	US
Turbidity	<u>30</u>	<u>344</u>	NTU
Dissolved Oxygen	<u>2.55</u>	<u>2.75</u>	
Appearance	<u>cloudy</u>	<u>cloudy</u>	
Weather:	<u>+ 3C sunny</u>		
Observations:	<u>sample cloudy</u>		
	<u>Signature: Matt Broker</u>		

PACE ANALYTICAL INC.
FIELD CALIBRATION SHEET

DATE: 2/10/15 SITE: Vails Gate Manufacturing
TECHNICIAN: Matt Broker WEATHER: 3C sunny

INSTRUMENT:

PH
CONDUCTIVITY
TEMPERATURE
DISSOLVED OXYGEN
TURBIDITY

Myron Ultrameter II 6PFCe
Myron Ultrameter II 6PFCe
Myron Ultrameter II 6PFCe
Sper Scientific 850041
Hanna HI 98703

INSTRUMENT	STANDARD	INITIAL READING	ADJUSTED READING	TIME	NOTES
PH	4.00	3.74	4.00	1001	
	7.00	7.43	7.00	957	
	10.00	10.03	10.00	959	
Conductivity	1413	1405	1413	1003	
Turbidity	<0.10	0.16	<0.10	1004	
	15	15.2	15	1005	
	100	100	100	1006	
	750	754	750	1007	

NOTES:

<15020213PT>



150202137

SAMPLE RECEIPT



SAMPLE RECEIPT REPORT

15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

CLIENT: LEADER CONSULTING SERVICES, INC.
PROJECT: VAILS GATE MANUFACTURING
LRF: 15020213
REPORT: DATA PACKAGE
EDD: YES
LRF TAT: 2 WEEK

RECEIVED DATE: 02/10/2015 16:35
SHIPPED VIA: PICK UP ^{1,2}
SHIPPING ID:
NUMBER OF COOLERS: 1
CUSTODY SEAL INTACT: NA
COOLER STATUS: CHILLED
TEMPERATURE(S): ³ 5.5 (IR) °C

SAMPLE SEALS INTACT: NA
SAMPLES PRESERVED PER METHOD GUIDANCE: YES
³ **SAMPLES REC'D IN HOLDTIME:** YES
DISPOSAL: BY LAB (45 DAYS)
COC DISCREPANCY: NO

COMMENTS:

CLIENT ID (LAB ID)	TAT-DUE Date ⁴	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
FIELD DUPLICATE-01 (AS03347)	2 WEEK 02-25-15	02/10/2015 10:40	Water	EPA 200.7 Rev. 4.4	Sulfate - Sub	
	2 WEEK 02-25-15	02/10/2015 10:40	Water	EPA 8260C	Metals by ICP (Custom)	
	2 WEEK 02-25-15	02/10/2015 10:40	Water	Misc Field Analysis	VOCs by GCMS	
	2 WEEK 02-25-15	02/10/2015 10:40	Water	SM 5310B-00,-11	Misc Field Analysis	
	2 WEEK 02-25-15	02/10/2015 10:40	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-5A/AR (AS03348)	2 WEEK 02-25-15	02/10/2015 10:42	Water	EPA 200.7 Rev. 4.4	Sulfate - Sub	
	2 WEEK 02-25-15	02/10/2015 10:42	Water	EPA 8260C	Metals by ICP (Custom)	
	2 WEEK 02-25-15	02/10/2015 10:42	Water	Misc Field Analysis	VOCs by GCMS	
	2 WEEK 02-25-15	02/10/2015 10:42	Water	SM 5310B-00,-11	Misc Field Analysis	
	2 WEEK 02-25-15	02/10/2015 10:42	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-14 (AS03349)	2 WEEK 02-25-15	02/10/2015 11:30	Water	EPA 200.7 Rev. 4.4	Sulfate - Sub	
	2 WEEK 02-25-15	02/10/2015 11:30	Water	EPA 8260C	Metals by ICP (Custom)	
	2 WEEK 02-25-15	02/10/2015 11:30	Water	Misc Field Analysis	VOCs by GCMS	
	2 WEEK 02-25-15	02/10/2015 11:30	Water	SM 5310B-00,-11	Misc Field Analysis	
	2 WEEK 02-25-15	02/10/2015 11:30	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-16 (AS03350)	2 WEEK 02-25-15	02/10/2015 11:15	Water	EPA 200.7 Rev. 4.4	Sulfate - Sub	
	2 WEEK 02-25-15	02/10/2015 11:15	Water	EPA 8260C	Metals by ICP (Custom)	
	2 WEEK 02-25-15	02/10/2015 11:15	Water	Misc Field Analysis	VOCs by GCMS	
	2 WEEK 02-25-15	02/10/2015 11:15	Water	SM 5310B-00,-11	Misc Field Analysis	
	2 WEEK 02-25-15	02/10/2015 11:15	Water	SM 5310B-00,-11	Total Organic Carbon	
MW-CHA-RFI-7 (AS03351)	2 WEEK 02-25-15	02/10/2015 14:30	Water	EPA 200.7 Rev. 4.4	Sulfate - Sub	MS, MSD
	2 WEEK 02-25-15	02/10/2015 14:30	Water	EPA 8260C	Metals by ICP (Custom)	MS, MSD
	2 WEEK 02-25-15	02/10/2015 14:30	Water	Misc Field Analysis	VOCs by GCMS	MS, MSD
	2 WEEK 02-25-15	02/10/2015 14:30	Water	SM 5310B-00,-11	Misc Field Analysis	MS, MSD
	2 WEEK 02-25-15	02/10/2015 14:30	Water	SM 5310B-00,-11	Total Organic Carbon	MS, MSD
TRIP BLANK-01 (AS03352)	2 WEEK 02-25-15	02/10/2015	Water	EPA 8260C	VOCs by GCMS	

¹The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.

²The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.

³Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.

⁴Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made.

The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.

⁵All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice. Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.

Reporting Parameters and Lists

EPA 200.7 Rev. 4.4 - Metals by ICP (Custom) - (mg/L)

Iron

EPA 8260C - VOCs by GCMS - (ug/L)

1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene

EPA 8260C - VOCs by GCMS - (ug/L)

1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane



Continued...

SAMPLE RECEIPT REPORT

15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

EPA 8260C - VOCs by GCMS - (ug/L)

1,2-Dibromoethane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
2,2-Dichloropropane
2-Butanone
2-Chlorotoluene
2-Hexanone
4-Chlorotoluene
4-Isopropyltoluene
4-Methyl-2-pentanone
Acetone
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
m&p-Xylene
Methylene chloride
MTBE
Naphthalene
n-Butylbenzene
n-Propylbenzene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethene
Toluene
Total Xylenes
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Vinyl acetate
Vinyl chloride

Misc Field Analysis - Misc Field Analysis - (mg/L)

Dissolved Oxygen
pH
Reduction Potential
Specific Conductance
Static Water Level
Temperature
Turbidity

SM 5310B-00,-11 - Total Organic Carbon - (mg/L)

Total Organic Carbon

GC/MS Volatiles

4



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: FIELD DUPLICATE-01
Lab Sample ID: 15020213-01 (AS03347)

Collection Date: 02/10/2015 10:40
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-17	EPA Method 8260C	02/11/2015 16:26	TJH	NA	NA	N/A
Analysis 2:	MS10-365-18	EPA Method 8260C	02/12/2015 16:46	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-17
1,1,1-Trichloroethane	71-55-6	93.9	20.0	20.0		MS10-365-18
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-17
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-17
1,1-Dichloroethane	75-34-3	176	20.0	20.0		MS10-365-18
1,1-Dichloroethene	75-35-4	6.83	1.00	1.00		MS11-27-17
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-17
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-17
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-17
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-17
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-17
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-17
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-17
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-17
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-17
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-17
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-17
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-17
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-17
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-17
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-17
2-Butanone	78-93-3	92.8	5.00	1.00		MS11-27-17
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-17
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-17
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-17
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-17
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-17
Acetone	67-64-1	438	200	20.0		MS10-365-18
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-17
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-17
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-17
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-17
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-17
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-17
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-17
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-17
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-17
Chloroethane	75-00-3	1020	20.0	20.0		MS10-365-18
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-17
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-17
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-17
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-17
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-17
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-17

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2190 Technology Drive | Schenectady, NY 12308 | Phone 518.346.4592 | Fax 518.381.6055 | www.pacelabs.com



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: FIELD DUPLICATE-01
Lab Sample ID: 15020213-01 (AS03347)

Collection Date: 02/10/2015 10:40
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-17	EPA Method 8260C	02/11/2015 16:26	TJH	NA	NA	N/A
Analysis 2:	MS10-365-18	EPA Method 8260C	02/12/2015 16:46	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 μ m

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-17
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-17
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-17
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-17
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-17
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-17
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-17
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-17
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-17
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-17
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-17
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-17
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-17
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-17
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-17
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-17
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-17
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-17
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-17
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-17
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-17
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-17
Vinyl chloride	75-01-4	3.22	1.00	1.00		MS11-27-17

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	98.1	76.5-132		MS11-27-17
Dibromofluoromethane	1868-53-7	104	78.0-126		MS11-27-17
Toluene-d8	2037-26-5	92.9	82.0-115		MS11-27-17
1,2-Dichloroethane-d4	17060-07-0	103	83.2-120		MS11-27-17

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.

Vinyl chloride, Bromomethane and Hexachlorobutadiene were recovered above established quality control limits in the Continuing Calibration Verification sample. High analytical bias may be indicated for Vinyl chloride; however, analytical bias is not indicated for the remaining analytes as neither were detected in the samples.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-5A/AR
Lab Sample ID: 15020213-02 (AS03348)

Collection Date: 02/10/2015 10:42
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-18	EPA Method 8260C	02/11/2015 16:54	TJH	NA	NA	N/A
Analysis 2:	MS10-365-19	EPA Method 8260C	02/12/2015 17:13	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-18
1,1,1-Trichloroethane	71-55-6	200	20.0	20.0		MS10-365-19
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-18
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-18
1,1-Dichloroethane	75-34-3	325	20.0	20.0		MS10-365-19
1,1-Dichloroethene	75-35-4	8.62	1.00	1.00		MS11-27-18
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-18
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-18
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-18
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-18
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-18
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-18
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-18
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-18
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-18
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-18
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-18
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-18
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-18
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-18
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-18
2-Butanone	78-93-3	82.1	5.00	1.00		MS11-27-18
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-18
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-18
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-18
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-18
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-18
Acetone	67-64-1	407	200	20.0		MS10-365-19
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-18
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-18
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-18
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-18
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-18
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-18
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-18
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-18
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-18
Chloroethane	75-00-3	1010	20.0	20.0		MS10-365-19
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-18
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-18
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-18
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-18
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-18
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-18

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Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-5A/AR
Lab Sample ID: 15020213-02 (AS03348)

Collection Date: 02/10/2015 10:42
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-18	EPA Method 8260C	02/11/2015 16:54	TJH	NA	NA	N/A
Analysis 2:	MS10-365-19	EPA Method 8260C	02/12/2015 17:13	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 μ m

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-18
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-18
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-18
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-18
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-18
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-18
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-18
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-18
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-18
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-18
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-18
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-18
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-18
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-18
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-18
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-18
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-18
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-18
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-18
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-18
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-18
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-18
Vinyl chloride	75-01-4	3.59	1.00	1.00		MS11-27-18

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	96.3	76.5-132		MS11-27-18
Dibromofluoromethane	1868-53-7	103	78.0-126		MS11-27-18
Toluene-d8	2037-26-5	94.7	82.0-115		MS11-27-18
1,2-Dichloroethane-d4	17060-07-0	101	83.2-120		MS11-27-18

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.

Vinyl chloride, Bromomethane and Hexachlorobutadiene were recovered above established quality control limits in the Continuing Calibration Verification sample. High analytical bias may be indicated for Vinyl chloride; however, analytical bias is not indicated for the remaining analytes as neither were detected in the samples.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-14
Lab Sample ID: 15020213-03 (AS03349)

Collection Date: 02/10/2015 11:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-15	EPA Method 8260C	02/11/2015 15:32	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-15
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS11-27-15
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-15
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-15
1,1-Dichloroethane	75-34-3	43.0	1.00	1.00		MS11-27-15
1,1-Dichloroethene	75-35-4	3.51	1.00	1.00		MS11-27-15
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-15
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-15
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-15
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-15
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-15
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-15
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-15
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-15
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-15
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-15
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-15
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-15
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-15
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-15
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-15
2-Butanone	78-93-3	ND	5.00	1.00	U	MS11-27-15
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-15
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-15
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-15
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-15
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-15
Acetone	67-64-1	27.3	10.0	1.00		MS11-27-15
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-15
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-15
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-15
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-15
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-15
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-15
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-15
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-15
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-15
Chloroethane	75-00-3	ND	1.00	1.00	U	MS11-27-15
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-15
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-15
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-15
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-15
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-15
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-15
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-15

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Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-14
Lab Sample ID: 15020213-03 (AS03349)

Collection Date: 02/10/2015 11:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-15	EPA Method 8260C	02/11/2015 15:32	TJH	NA	NA	N/A

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-15
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-15
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-15
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-15
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-15
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-15
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-15
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-15
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-15
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-15
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-15
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-15
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-15
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-15
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-15
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-15
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-15
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-15
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-15
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-15
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-15
Vinyl chloride	75-01-4	2.79	1.00	1.00		MS11-27-15

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	95.8	76.5-132		MS11-27-15
Dibromofluoromethane	1868-53-7	108	78.0-126		MS11-27-15
Toluene-d8	2037-26-5	92.9	82.0-115		MS11-27-15
1,2-Dichloroethane-d4	17060-07-0	105	83.2-120		MS11-27-15

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-16
Lab Sample ID: 15020213-04 (AS03350)

Collection Date: 02/10/2015 11:15
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-16	EPA Method 8260C	02/11/2015 15:59	TJH	NA	NA	N/A
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-16
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS11-27-16
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-16
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-16
1,1-Dichloroethane	75-34-3	7.18	1.00	1.00		MS11-27-16
1,1-Dichloroethene	75-35-4	1.73	1.00	1.00		MS11-27-16
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-16
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-16
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-16
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-16
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-16
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-16
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-16
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-16
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-16
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-16
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-16
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-16
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-16
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-16
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-16
2-Butanone	78-93-3	ND	5.00	1.00	U	MS11-27-16
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-16
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-16
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-16
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-16
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-16
Acetone	67-64-1	ND	10.0	1.00	U	MS11-27-16
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-16
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-16
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-16
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-16
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-16
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-16
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-16
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-16
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-16
Chloroethane	75-00-3	ND	1.00	1.00	U	MS11-27-16
Chloroform	67-66-3	1.85	1.00	1.00		MS11-27-16
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-16
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-16
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-16
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-16
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-16
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-16

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Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-16
Lab Sample ID: 15020213-04 (AS03350)

Collection Date: 02/10/2015 11:15
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-16	EPA Method 8260C	02/11/2015 15:59	TJH	NA	NA	N/A

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-16
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-16
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-16
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-16
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-16
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-16
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-16
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-16
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-16
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-16
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-16
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-16
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-16
Tetrachloroethene	127-18-4	1.42	1.00	1.00		MS11-27-16
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-16
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-16
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-16
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-16
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-16
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-16
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-16
Vinyl chloride	75-01-4	ND	1.00	1.00	U	MS11-27-16

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	94.9	76.5-132		MS11-27-16
Dibromofluoromethane	1868-53-7	104	78.0-126		MS11-27-16
Toluene-d8	2037-26-5	90.6	82.0-115		MS11-27-16
1,2-Dichloroethane-d4	17060-07-0	100	83.2-120		MS11-27-16

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7
Lab Sample ID: 15020213-05 (AS03351)

Collection Date: 02/10/2015 14:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-13	EPA Method 8260C	02/11/2015 14:34	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-13
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS11-27-13
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-13
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-13
1,1-Dichloroethane	75-34-3	ND	1.00	1.00	U	MS11-27-13
1,1-Dichloroethene	75-35-4	ND	1.00	1.00	U	MS11-27-13
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-13
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-13
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-13
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-13
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-13
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-13
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-13
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-13
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-13
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-13
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-13
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-13
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-13
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-13
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-13
2-Butanone	78-93-3	ND	5.00	1.00	U	MS11-27-13
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-13
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-13
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-13
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-13
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-13
Acetone	67-64-1	ND	10.0	1.00	U	MS11-27-13
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-13
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-13
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-13
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-13
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-13
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-13
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-13
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-13
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-13
Chloroethane	75-00-3	ND	1.00	1.00	U	MS11-27-13
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-13
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-13
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-13
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-13
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-13
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-13
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-13

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Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7
Lab Sample ID: 15020213-05 (AS03351)

Collection Date: 02/10/2015 14:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-13	EPA Method 8260C	02/11/2015 14:34	TJH	NA	NA	N/A

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-13
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-13
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-13
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-13
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-13
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-13
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-13
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-13
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-13
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-13
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-13
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-13
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-13
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-13
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-13
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-13
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-13
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-13
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-13
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-13
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-13
Vinyl chloride	75-01-4	ND	1.00	1.00	U	MS11-27-13

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	93.5	76.5-132		MS11-27-13
Dibromofluoromethane	1868-53-7	106	78.0-126		MS11-27-13
Toluene-d8	2037-26-5	94.1	82.0-115		MS11-27-13
1,2-Dichloroethane-d4	17060-07-0	106	83.2-120		MS11-27-13

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: TRIP BLANK-01
Lab Sample ID: 15020213-06 (AS03352)

Collection Date: 02/10/2015
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-14	EPA Method 8260C	02/11/2015 15:02	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-14
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS11-27-14
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-14
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-14
1,1-Dichloroethane	75-34-3	ND	1.00	1.00	U	MS11-27-14
1,1-Dichloroethene	75-35-4	ND	1.00	1.00	U	MS11-27-14
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-14
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-14
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-14
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-14
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-14
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-14
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-14
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-14
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-14
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-14
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-14
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-14
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-14
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-14
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-14
2-Butanone	78-93-3	ND	5.00	1.00	U	MS11-27-14
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-14
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-14
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-14
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-14
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-14
Acetone	67-64-1	ND	10.0	1.00	U	MS11-27-14
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-14
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-14
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-14
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-14
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-14
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-14
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-14
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-14
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-14
Chloroethane	75-00-3	ND	1.00	1.00	U	MS11-27-14
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-14
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-14
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-14
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-14
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-14
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-14
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-14

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Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: TRIP BLANK-01
Lab Sample ID: 15020213-06 (AS03352)

Collection Date: 02/10/2015
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-14	EPA Method 8260C	02/11/2015 15:02	TJH	NA	NA	N/A

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-14
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-14
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-14
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-14
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-14
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-14
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-14
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-14
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-14
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-14
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-14
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-14
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-14
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-14
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-14
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-14
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-14
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-14
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-14
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-14
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-14
Vinyl chloride	75-01-4	ND	1.00	1.00	U	MS11-27-14

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	93.8	76.5-132		MS11-27-14
Dibromofluoromethane	1868-53-7	104	78.0-126		MS11-27-14
Toluene-d8	2037-26-5	92.2	82.0-115		MS11-27-14
1,2-Dichloroethane-d4	17060-07-0	104	83.2-120		MS11-27-14

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Dichlorodifluoromethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike sample.

2,2-Dichloropropane, Carbon tetrachloride, Chloroethane, Trichlorofluoromethane, and Vinyl chloride were recovered above established quality control limits in the client-requested Matrix Spike Duplicate sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.

Metals - ICP

5



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: FIELD DUPLICATE-01
Lab Sample ID: 15020213-01 (AS03347)

Collection Date: 02/10/2015 10:40
Sample Matrix: WATER(DISSOLVED)
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-73	EPA 200.7	02/17/2015 14:28	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	39.4	0.0500	1.00		ICP2-1502-73

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\\$) NYSDOH does not currently offer certification for this analyte.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-5A/AR
Lab Sample ID: 15020213-02 (AS03348)

Collection Date: 02/10/2015 10:42
Sample Matrix: WATER(DISSOLVED)
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-74	EPA 200.7	02/17/2015 14:30	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	42.9	0.0500	1.00		ICP2-1502-74

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\\$) NYSDOH does not currently offer certification for this analyte.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-14
Lab Sample ID: 15020213-03 (AS03349)

Collection Date: 02/10/2015 11:30
Sample Matrix: WATER(DISSOLVED)
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-75	EPA 200.7	02/17/2015 14:33	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	8.41	0.0500	1.00		ICP2-1502-75

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\\$) NYSDOH does not currently offer certification for this analyte.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-16
Lab Sample ID: 15020213-04 (AS03350)

Collection Date: 02/10/2015 11:15
Sample Matrix: WATER(DISSOLVED)
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-76	EPA 200.7	02/17/2015 14:35	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	1.47	0.0500	1.00		ICP2-1502-76

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\\$) NYSDOH does not currently offer certification for this analyte.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7
Lab Sample ID: 15020213-05 (AS03351)

Collection Date: 02/10/2015 14:30
Sample Matrix: WATER(DISSOLVED)
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-77	EPA 200.7	02/17/2015 14:38	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	0.124	0.0500	1.00		ICP2-1502-77

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\$) NYSDOH does not currently offer certification for this analyte.

Wet Chemistry - TOC/DTOC



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: FIELD DUPLICATE-01
Lab Sample ID: 15020213-01 (AS03347)

Collection Date: 02/10/2015 10:40
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 14:32	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	90.6	1.00	2.00		776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-5A/AR
Lab Sample ID: 15020213-02 (AS03348)

Collection Date: 02/10/2015 10:42
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 14:59	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	95.4	1.00	2.00		776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-14
Lab Sample ID: 15020213-03 (AS03349)

Collection Date: 02/10/2015 11:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 15:26	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	35.8	0.500	1.00		776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-16
Lab Sample ID: 15020213-04 (AS03350)

Collection Date: 02/10/2015 11:15
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 15:40	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	4.22	0.500	1.00		776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7
Lab Sample ID: 15020213-05 (AS03351)

Collection Date: 02/10/2015 14:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 15:52	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	0.746	0.500	1.00		776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Quality Control Samples (Field)



**Quality Control Results
Matrix Spike Sample (MS)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-19	EPA Method 8260C	02/11/2015 17:21	TJH	NA	NA	N/A
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	52.5	1.00	1.00		MS11-27-19
1,1,1-Trichloroethane	71-55-6	60.1	1.00	1.00		MS11-27-19
1,1,2,2-Tetrachloroethane	79-34-5	48.3	1.00	1.00		MS11-27-19
1,1,2-Trichloroethane	79-00-5	50.1	1.00	1.00		MS11-27-19
1,1-Dichloroethane	75-34-3	47.4	1.00	1.00		MS11-27-19
1,1-Dichloroethene	75-35-4	61.2	1.00	1.00		MS11-27-19
1,1-Dichloropropene	563-58-6	60.7	1.00	1.00		MS11-27-19
1,2,3-Trichlorobenzene	87-61-6	47.4	1.00	1.00		MS11-27-19
1,2,3-Trichloropropane	96-18-4	48.0	1.00	1.00		MS11-27-19
1,2,4-Trichlorobenzene	120-82-1	48.4	1.00	1.00		MS11-27-19
1,2,4-Trimethylbenzene	95-63-6	49.0	1.00	1.00		MS11-27-19
1,2-Dibromo-3-chloropropane	96-12-8	45.4	1.00	1.00		MS11-27-19
1,2-Dibromoethane	106-93-4	50.7	1.00	1.00		MS11-27-19
1,2-Dichlorobenzene	95-50-1	47.5	1.00	1.00		MS11-27-19
1,2-Dichloroethane	107-06-2	53.0	1.00	1.00		MS11-27-19
1,2-Dichloropropane	78-87-5	56.0	1.00	1.00		MS11-27-19
1,3,5-Trimethylbenzene	108-67-8	50.3	1.00	1.00		MS11-27-19
1,3-Dichlorobenzene	541-73-1	48.9	1.00	1.00		MS11-27-19
1,3-Dichloropropane	142-28-9	49.8	1.00	1.00		MS11-27-19
1,4-Dichlorobenzene	106-46-7	48.1	1.00	1.00		MS11-27-19
2,2-Dichloropropane	594-20-7	63.3	1.00	1.00		MS11-27-19
2-Butanone	78-93-3	49.5	5.00	1.00		MS11-27-19
2-Chlorotoluene	95-49-8	49.9	1.00	1.00		MS11-27-19
2-Hexanone	591-78-6	47.2	5.00	1.00		MS11-27-19
4-Chlorotoluene	106-43-4	49.2	1.00	1.00		MS11-27-19
4-Isopropyltoluene	99-87-6	51.2	1.00	1.00		MS11-27-19
4-Methyl-2-pentanone	108-10-1	46.8	5.00	1.00		MS11-27-19
Acetone	67-64-1	37.8	10.0	1.00		MS11-27-19
Benzene	71-43-2	56.2	1.00	1.00		MS11-27-19
Bromobenzene	108-86-1	49.7	1.00	1.00		MS11-27-19
Bromochloromethane	74-97-5	55.0	1.00	1.00		MS11-27-19
Bromodichloromethane	75-27-4	55.1	1.00	1.00		MS11-27-19
Bromoform	75-25-2	58.9	1.00	1.00		MS11-27-19
Bromomethane	74-83-9	48.0	1.00	1.00		MS11-27-19
Carbon disulfide	75-15-0	59.1	1.00	1.00		MS11-27-19
Carbon tetrachloride	56-23-5	63.1	1.00	1.00		MS11-27-19
Chlorobenzene	108-90-7	50.7	1.00	1.00		MS11-27-19
Chloroethane	75-00-3	68.7	1.00	1.00		MS11-27-19
Chloroform	67-66-3	53.7	1.00	1.00		MS11-27-19
Chloromethane	74-87-3	59.5	1.00	1.00		MS11-27-19
cis-1,2-Dichloroethene	156-59-2	54.8	1.00	1.00		MS11-27-19
cis-1,3-Dichloropropene	10061-01-5	53.2	1.00	1.00		MS11-27-19
Dibromochloromethane	124-48-1	55.6	1.00	1.00		MS11-27-19
Dibromomethane	74-95-3	55.9	1.00	1.00		MS11-27-19
Dichlorodifluoromethane	75-71-8	64.5	1.00	1.00		MS11-27-19

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**Quality Control Results
Matrix Spike Sample (MS)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-19	EPA Method 8260C	02/11/2015 17:21	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	51.4	1.00	1.00		MS11-27-19
Hexachlorobutadiene	87-68-3	51.9	1.00	1.00		MS11-27-19
Isopropylbenzene	98-82-8	51.4	1.00	1.00		MS11-27-19
m&p-Xylene	136777-61-2	102	1.00	1.00		MS11-27-19
Methylene chloride	75-09-2	46.4	1.00	1.00		MS11-27-19
MTBE	1634-04-4	55.8	1.00	1.00		MS11-27-19
Naphthalene	91-20-3	45.9	1.00	1.00		MS11-27-19
n-Butylbenzene	104-51-8	49.9	1.00	1.00		MS11-27-19
n-Propylbenzene	103-65-1	50.2	1.00	1.00		MS11-27-19
o-Xylene	95-47-6	50.2	1.00	1.00		MS11-27-19
sec-Butylbenzene	135-98-8	50.5	1.00	1.00		MS11-27-19
Styrene	100-42-5	49.7	1.00	1.00		MS11-27-19
tert-Butylbenzene	98-06-6	50.9	1.00	1.00		MS11-27-19
Tetrachloroethene	127-18-4	57.3	1.00	1.00		MS11-27-19
Toluene	108-88-3	52.9	1.00	1.00		MS11-27-19
Total Xylenes	1330-20-7	152	1.00	1.00		MS11-27-19
trans-1,2-Dichloroethene	156-60-5	60.6	1.00	1.00		MS11-27-19
trans-1,3-Dichloropropene	10061-02-6	52.3	1.00	1.00		MS11-27-19
Trichloroethene	79-01-6	62.3	1.00	1.00		MS11-27-19
Trichlorofluoromethane	75-69-4	74.5	1.00	1.00		MS11-27-19
Vinyl acetate	108-05-4	49.3	1.00	1.00		MS11-27-19
Vinyl chloride	75-01-4	63.4	1.00	1.00		MS11-27-19



Quality Control Results
Matrix Spike Sample (MS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-19	EPA Method 8260C	02/11/2015 17:21	TJH	NA	NA	N/A

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MS (ug/L)	MS % Rec.	Q ¹	Limits (%)
1,1,1,2-Tetrachloroethane	630-20-6	48.2	52.5	109	70.0-130		
1,1,1-Trichloroethane	71-55-6	48.2	60.1	125	70.0-130		
1,1,2,2-Tetrachloroethane	79-34-5	48.2	48.3	100	70.0-130		
1,1,2-Trichloroethane	79-00-5	48.2	50.1	104	70.0-130		
1,1-Dichloroethane	75-34-3	48.2	47.4	98.4	70.0-130		
1,1-Dichloroethene	75-35-4	48.2	61.2	127	70.0-130		
1,1-Dichloropropene	563-58-6	48.2	60.7	126	70.0-130		
1,2,3-Trichlorobenzene	87-61-6	48.2	47.4	98.3	70.0-130		
1,2,3-Trichloropropane	96-18-4	48.2	48.0	99.6	70.0-130		
1,2,4-Trichlorobenzene	120-82-1	48.2	48.4	100	70.0-130		
1,2,4-Trimethylbenzene	95-63-6	48.2	49.0	102	70.0-130		
1,2-Dibromo-3-chloropropane	96-12-8	48.2	45.4	94.1	70.0-130		
1,2-Dibromoethane	106-93-4	48.2	50.7	105	70.0-130		
1,2-Dichlorobenzene	95-50-1	48.2	47.5	98.5	70.0-130		
1,2-Dichloroethane	107-06-2	48.2	53.0	110	70.0-130		
1,2-Dichloropropane	78-87-5	48.2	56.0	116	70.0-130		
1,3,5-Trimethylbenzene	108-67-8	48.2	50.3	104	70.0-130		
1,3-Dichlorobenzene	541-73-1	48.2	48.9	101	70.0-130		
1,3-Dichloropropane	142-28-9	48.2	49.8	103	70.0-130		
1,4-Dichlorobenzene	106-46-7	48.2	48.1	99.9	70.0-130		
2,2-Dichloropropane	594-20-7	48.2	63.3	131	*	70.0-130	
2-Butanone	78-93-3	48.2	49.5	103	70.0-130		
2-Chlorotoluene	95-49-8	48.2	49.9	103	70.0-130		
2-Hexanone	591-78-6	48.2	47.2	98.0	70.0-130		
4-Chlorotoluene	106-43-4	48.2	49.2	102	70.0-130		
4-Isopropyltoluene	99-87-6	48.2	51.2	106	70.0-130		
4-Methyl-2-pentanone	108-10-1	48.2	46.8	97.0	70.0-130		
Acetone	67-64-1	48.2	37.8	78.4	70.0-130		
Benzene	71-43-2	48.2	56.2	117	70.0-130		
Bromobenzene	108-86-1	48.2	49.7	103	70.0-130		
Bromochloromethane	74-97-5	48.2	55.0	114	70.0-130		
Bromodichloromethane	75-27-4	48.2	55.1	114	70.0-130		
Bromoform	75-25-2	48.2	58.9	122	70.0-130		
Bromomethane	74-83-9	48.2	48.0	99.6	70.0-130		
Carbon disulfide	75-15-0	48.2	59.1	123	70.0-130		
Carbon tetrachloride	56-23-5	48.2	63.1	131	*	70.0-130	
Chlorobenzene	108-90-7	48.2	50.7	105	70.0-130		
Chloroethane	75-00-3	48.2	68.7	142	*	70.0-130	
Chloroform	67-66-3	48.2	53.7	111	70.0-130		
Chloromethane	74-87-3	48.2	59.5	123	70.0-130		
cis-1,2-Dichloroethene	156-59-2	48.2	54.8	114	70.0-130		
cis-1,3-Dichloropropene	10061-01-5	48.2	53.2	110	70.0-130		
Dibromochloromethane	124-48-1	48.2	55.6	115	70.0-130		
Dibromomethane	74-95-3	48.2	55.9	116	70.0-130		
Dichlorodifluoromethane	75-71-8	48.2	64.5	134	*	70.0-130	
Ethylbenzene	100-41-4	48.2	51.4	107	70.0-130		
Hexachlorobutadiene	87-68-3	48.2	51.9	108	70.0-130		
Isopropylbenzene	98-82-8	48.2	51.4	107	70.0-130		
m&p-Xylene	136777-61-2	96.4	102	106	70.0-130		
Methylene chloride	75-09-2	48.2	46.4	96.3	70.0-130		
MTBE	1634-04-4	48.2	55.8	116	70.0-130		
Naphthalene	91-20-3	48.2	45.9	95.2	70.0-130		
n-Butylbenzene	104-51-8	48.2	49.9	103	70.0-130		

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Quality Control Results
Matrix Spike Sample (MS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-19	EPA Method 8260C	02/11/2015 17:21	TJH	NA	NA	N/A

Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MS (ug/L)	MS % Rec.	Q ¹	Limits (%)
n-Propylbenzene	103-65-1	48.2	50.2	104	70.0-130		
o-Xylene	95-47-6	48.2	50.2	104	70.0-130		
sec-Butylbenzene	135-98-8	48.2	50.5	105	70.0-130		
Styrene	100-42-5	48.2	49.7	103	70.0-130		
tert-Butylbenzene	98-06-6	48.2	50.9	106	70.0-130		
Tetrachloroethene	127-18-4	48.2	57.3	119	70.0-130		
Toluene	108-88-3	48.2	52.9	110	70.0-130		
Total Xylenes	1330-20-7	145	152	105	70.0-130		
trans-1,2-Dichloroethene	156-60-5	48.2	60.6	126	70.0-130		
trans-1,3-Dichloropropene	10061-02-6	48.2	52.3	109	70.0-130		
Trichloroethene	79-01-6	48.2	62.3	129	70.0-130		
Trichlorofluoromethane	75-69-4	48.2	74.5	155	*	70.0-130	
Vinyl acetate	108-05-4	48.2	49.3	102	70.0-130		
Vinyl chloride	75-01-4	48.2	63.4	132	*	70.0-130	

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	97.6	76.5-132		MS11-27-19
Dibromofluoromethane	1868-53-7	96.9	78.0-126		MS11-27-19
Toluene-d8	2037-26-5	93.5	82.0-115		MS11-27-19
1,2-Dichloroethane-d4	17060-07-0	101	83.2-120		MS11-27-19

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.



**Quality Control Results
Matrix Spike Duplicate (MSD)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-20	EPA Method 8260C	02/11/2015 17:48	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	53.3	1.00	1.00		MS11-27-20
1,1,1-Trichloroethane	71-55-6	60.5	1.00	1.00		MS11-27-20
1,1,2,2-Tetrachloroethane	79-34-5	49.0	1.00	1.00		MS11-27-20
1,1,2-Trichloroethane	79-00-5	50.3	1.00	1.00		MS11-27-20
1,1-Dichloroethane	75-34-3	48.1	1.00	1.00		MS11-27-20
1,1-Dichloroethene	75-35-4	60.9	1.00	1.00		MS11-27-20
1,1-Dichloropropene	563-58-6	60.8	1.00	1.00		MS11-27-20
1,2,3-Trichlorobenzene	87-61-6	48.6	1.00	1.00		MS11-27-20
1,2,3-Trichloropropane	96-18-4	47.4	1.00	1.00		MS11-27-20
1,2,4-Trichlorobenzene	120-82-1	49.6	1.00	1.00		MS11-27-20
1,2,4-Trimethylbenzene	95-63-6	50.2	1.00	1.00		MS11-27-20
1,2-Dibromo-3-chloropropane	96-12-8	46.0	1.00	1.00		MS11-27-20
1,2-Dibromoethane	106-93-4	50.6	1.00	1.00		MS11-27-20
1,2-Dichlorobenzene	95-50-1	48.4	1.00	1.00		MS11-27-20
1,2-Dichloroethane	107-06-2	53.4	1.00	1.00		MS11-27-20
1,2-Dichloropropane	78-87-5	54.0	1.00	1.00		MS11-27-20
1,3,5-Trimethylbenzene	108-67-8	50.7	1.00	1.00		MS11-27-20
1,3-Dichlorobenzene	541-73-1	49.8	1.00	1.00		MS11-27-20
1,3-Dichloropropane	142-28-9	51.3	1.00	1.00		MS11-27-20
1,4-Dichlorobenzene	106-46-7	48.9	1.00	1.00		MS11-27-20
2,2-Dichloropropane	594-20-7	63.8	1.00	1.00		MS11-27-20
2-Butanone	78-93-3	49.0	5.00	1.00		MS11-27-20
2-Chlorotoluene	95-49-8	50.8	1.00	1.00		MS11-27-20
2-Hexanone	591-78-6	47.1	5.00	1.00		MS11-27-20
4-Chlorotoluene	106-43-4	52.1	1.00	1.00		MS11-27-20
4-Isopropyltoluene	99-87-6	52.6	1.00	1.00		MS11-27-20
4-Methyl-2-pentanone	108-10-1	47.0	5.00	1.00		MS11-27-20
Acetone	67-64-1	37.3	10.0	1.00		MS11-27-20
Benzene	71-43-2	56.5	1.00	1.00		MS11-27-20
Bromobenzene	108-86-1	51.1	1.00	1.00		MS11-27-20
Bromochloromethane	74-97-5	54.1	1.00	1.00		MS11-27-20
Bromodichloromethane	75-27-4	55.6	1.00	1.00		MS11-27-20
Bromoform	75-25-2	59.7	1.00	1.00		MS11-27-20
Bromomethane	74-83-9	58.0	1.00	1.00		MS11-27-20
Carbon disulfide	75-15-0	59.1	1.00	1.00		MS11-27-20
Carbon tetrachloride	56-23-5	63.8	1.00	1.00		MS11-27-20
Chlorobenzene	108-90-7	51.2	1.00	1.00		MS11-27-20
Chloroethane	75-00-3	66.0	1.00	1.00		MS11-27-20
Chloroform	67-66-3	55.1	1.00	1.00		MS11-27-20
Chloromethane	74-87-3	60.3	1.00	1.00		MS11-27-20
cis-1,2-Dichloroethene	156-59-2	54.2	1.00	1.00		MS11-27-20
cis-1,3-Dichloropropene	10061-01-5	53.3	1.00	1.00		MS11-27-20
Dibromochloromethane	124-48-1	56.1	1.00	1.00		MS11-27-20
Dibromomethane	74-95-3	53.6	1.00	1.00		MS11-27-20
Dichlorodifluoromethane	75-71-8	61.8	1.00	1.00		MS11-27-20

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Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-20	EPA Method 8260C	02/11/2015 17:48	TJH	NA	NA
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	52.8	1.00	1.00		MS11-27-20
Hexachlorobutadiene	87-68-3	54.6	1.00	1.00		MS11-27-20
Isopropylbenzene	98-82-8	52.8	1.00	1.00		MS11-27-20
m&p-Xylene	136777-61-2	104	1.00	1.00		MS11-27-20
Methylene chloride	75-09-2	51.1	1.00	1.00		MS11-27-20
MTBE	1634-04-4	56.7	1.00	1.00		MS11-27-20
Naphthalene	91-20-3	46.0	1.00	1.00		MS11-27-20
n-Butylbenzene	104-51-8	51.2	1.00	1.00		MS11-27-20
n-Propylbenzene	103-65-1	52.0	1.00	1.00		MS11-27-20
o-Xylene	95-47-6	50.6	1.00	1.00		MS11-27-20
sec-Butylbenzene	135-98-8	52.0	1.00	1.00		MS11-27-20
Styrene	100-42-5	50.3	1.00	1.00		MS11-27-20
tert-Butylbenzene	98-06-6	52.1	1.00	1.00		MS11-27-20
Tetrachloroethene	127-18-4	58.5	1.00	1.00		MS11-27-20
Toluene	108-88-3	51.9	1.00	1.00		MS11-27-20
Total Xylenes	1330-20-7	155	1.00	1.00		MS11-27-20
trans-1,2-Dichloroethene	156-60-5	60.9	1.00	1.00		MS11-27-20
trans-1,3-Dichloropropene	10061-02-6	53.0	1.00	1.00		MS11-27-20
Trichloroethene	79-01-6	61.1	1.00	1.00		MS11-27-20
Trichlorofluoromethane	75-69-4	74.8	1.00	1.00		MS11-27-20
Vinyl acetate	108-05-4	48.6	1.00	1.00		MS11-27-20
Vinyl chloride	75-01-4	63.1	1.00	1.00		MS11-27-20



Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column			
Analysis 1:	MS11-27-20	EPA Method 8260C	02/11/2015 17:48	TJH	NA	NA			
						Precision			
Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MSD (ug/L)	MSD % Rec.	Q ¹			
				Limits (%)	MS % Rec.	RPD	Q ¹	Limits (%)	
1,1,1,2-Tetrachloroethane	630-20-6	48.2	53.3	111	70.0-130	109	1.82	20	
1,1,1-Trichloroethane	71-55-6	48.2	60.5	125	70.0-130	125	0.00	20	
1,1,2,2-Tetrachloroethane	79-34-5	48.2	49.0	102	70.0-130	100	1.98	20	
1,1,2-Trichloroethane	79-00-5	48.2	50.3	104	70.0-130	104	0.00	20	
1,1-Dichloroethane	75-34-3	48.2	48.1	99.7	70.0-130	98.4	1.31	20	
1,1-Dichloroethene	75-35-4	48.2	60.9	126	70.0-130	127	0.791	20	
1,1-Dichloropropene	563-58-6	48.2	60.8	126	70.0-130	126	0.00	20	
1,2,3-Trichlorobenzene	87-61-6	48.2	48.6	101	70.0-130	98.3	2.71	20	
1,2,3-Trichloropropane	96-18-4	48.2	47.4	98.4	70.0-130	99.6	1.21	20	
1,2,4-Trichlorobenzene	120-82-1	48.2	49.6	103	70.0-130	100	2.96	20	
1,2,4-Trimethylbenzene	95-63-6	48.2	50.2	104	70.0-130	102	1.94	20	
1,2-Dibromo-3-chloropropane	96-12-8	48.2	46.0	95.3	70.0-130	94.1	1.27	20	
1,2-Dibromoethane	106-93-4	48.2	50.6	105	70.0-130	105	0.00	20	
1,2-Dichlorobenzene	95-50-1	48.2	48.4	100	70.0-130	98.5	1.51	20	
1,2-Dichloroethane	107-06-2	48.2	53.4	111	70.0-130	110	0.905	20	
1,2-Dichloropropane	78-87-5	48.2	54.0	112	70.0-130	116	3.51	20	
1,3,5-Trimethylbenzene	108-67-8	48.2	50.7	105	70.0-130	104	0.957	20	
1,3-Dichlorobenzene	541-73-1	48.2	49.8	103	70.0-130	101	1.96	20	
1,3-Dichloropropane	142-28-9	48.2	51.3	106	70.0-130	103	2.87	20	
1,4-Dichlorobenzene	106-46-7	48.2	48.9	101	70.0-130	99.9	1.10	20	
2,2-Dichloropropane	594-20-7	48.2	63.8	132	*	70.0-130	131	0.760	20
2-Butanone	78-93-3	48.2	49.0	102	70.0-130	103	0.976	20	
2-Chlorotoluene	95-49-8	48.2	50.8	105	70.0-130	103	1.92	20	
2-Hexanone	591-78-6	48.2	47.1	97.7	70.0-130	98.0	0.307	20	
4-Chlorotoluene	106-43-4	48.2	52.1	108	70.0-130	102	5.71	20	
4-Isopropyltoluene	99-87-6	48.2	52.6	109	70.0-130	106	2.79	20	
4-Methyl-2-pentanone	108-10-1	48.2	47.0	97.4	70.0-130	97.0	0.412	20	
Acetone	67-64-1	48.2	37.3	77.5	70.0-130	78.4	1.15	20	
Benzene	71-43-2	48.2	56.5	117	70.0-130	117	0.00	20	
Bromobenzene	108-86-1	48.2	51.1	106	70.0-130	103	2.87	20	
Bromochloromethane	74-97-5	48.2	54.1	112	70.0-130	114	1.77	20	
Bromodichloromethane	75-27-4	48.2	55.6	115	70.0-130	114	0.873	20	
Bromoform	75-25-2	48.2	59.7	124	70.0-130	122	1.63	20	
Bromomethane	74-83-9	48.2	58.0	120	70.0-130	99.6	18.6	20	
Carbon disulfide	75-15-0	48.2	59.1	123	70.0-130	123	0.00	20	
Carbon tetrachloride	56-23-5	48.2	63.8	132	*	70.0-130	131	0.760	20
Chlorobenzene	108-90-7	48.2	51.2	106	70.0-130	105	0.948	20	
Chloroethane	75-00-3	48.2	66.0	137	*	70.0-130	142	3.58	20
Chloroform	67-66-3	48.2	55.1	114	70.0-130	111	2.67	20	
Chloromethane	74-87-3	48.2	60.3	125	70.0-130	123	1.61	20	
cis-1,2-Dichloroethene	156-59-2	48.2	54.2	112	70.0-130	114	1.77	20	
cis-1,3-Dichloropropene	10061-01-5	48.2	53.3	111	70.0-130	110	0.905	20	
Dibromochloromethane	124-48-1	48.2	56.1	116	70.0-130	115	0.866	20	
Dibromomethane	74-95-3	48.2	53.6	111	70.0-130	116	4.41	20	
Dichlorodifluoromethane	75-71-8	48.2	61.8	128	70.0-130	134	4.58	20	
Ethylbenzene	100-41-4	48.2	52.8	109	70.0-130	107	1.85	20	
Hexachlorobutadiene	87-68-3	48.2	54.6	113	70.0-130	108	4.52	20	
Isopropylbenzene	98-82-8	48.2	52.8	110	70.0-130	107	2.76	20	
m&p-Xylene	136777-61-2	96.4	104	108	70.0-130	106	1.87	20	
Methylene chloride	75-09-2	48.2	51.1	106	70.0-130	96.3	9.59	20	
MTBE	1634-04-4	48.2	56.7	118	70.0-130	116	1.71	20	
Naphthalene	91-20-3	48.2	46.0	95.4	70.0-130	95.2	0.210	20	
n-Butylbenzene	104-51-8	48.2	51.2	106	70.0-130	103	2.87	20	

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Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-20	EPA Method 8260C	02/11/2015 17:48	TJH	NA	NA
Precision						
Analyte Spiked	CAS No.	Sample (ug/L)	Added (ug/L)	MSD (ug/L)	MSD % Rec.	Q ¹
					Limits (%)	
n-Propylbenzene	103-65-1	48.2	52.0	108	70.0-130	104
o-Xylene	95-47-6	48.2	50.6	105	70.0-130	104
sec-Butylbenzene	135-98-8	48.2	52.0	108	70.0-130	105
Styrene	100-42-5	48.2	50.3	104	70.0-130	103
tert-Butylbenzene	98-06-6	48.2	52.1	108	70.0-130	106
Tetrachloroethene	127-18-4	48.2	58.5	121	70.0-130	119
Toluene	108-88-3	48.2	51.9	108	70.0-130	110
Total Xylenes	1330-20-7	145	155	107	70.0-130	105
trans-1,2-Dichloroethene	156-60-5	48.2	60.9	126	70.0-130	126
trans-1,3-Dichloropropene	10061-02-6	48.2	53.0	110	70.0-130	109
Trichloroethene	79-01-6	48.2	61.1	127	70.0-130	129
Trichlorofluoromethane	75-69-4	48.2	74.8	155	*	155
Vinyl acetate	108-05-4	48.2	48.6	101	70.0-130	102
Vinyl chloride	75-01-4	48.2	63.1	131	*	132
					Limits (%)	

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	98.1	76.5-132		MS11-27-20
Dibromofluoromethane	1868-53-7	98.2	78.0-126		MS11-27-20
Toluene-d8	2037-26-5	93.8	82.0-115		MS11-27-20
1,2-Dichloroethane-d4	17060-07-0	98.4	83.2-120		MS11-27-20

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Trichlorofluoromethane and Bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither were detected in the samples.

Field Analysis



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-5A/AR
Lab Sample ID: 15020213-02 (AS03348)

Collection Date: 02/10/2015 10:42
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	02/10/2015 10:42	MEB	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen	7782-44-7	1.91 (mg/L)	0.00	1.00		Field Test
pH	NA	6.74 (pH)	0.00	1.00		Field Test
Reduction Potential	NA	-42.0 (mV)	0.00	1.00		Field Test
Specific Conductance	NA	1610 (umhos/cn)	0.00	1.00		Field Test
Static Water Level	NA	0.800 (ft)	0.00	1.00		Field Test
Temperature	NA	6.10 (°C)	0.00	1.00		Field Test
Turbidity	NA	75.7 (NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. NYS-DOH ELAP/NELAC laboratory certification is not available for these field parameters.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-14
Lab Sample ID: 15020213-03 (AS03349)

Collection Date: 02/10/2015 11:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	02/10/2015 11:30	MEB	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen	7782-44-7	1.72 (mg/L)	0.00	1.00		Field Test
pH	NA	6.98 (pH)	0.00	1.00		Field Test
Reduction Potential	NA	47.0 (mV)	0.00	1.00		Field Test
Specific Conductance	NA	1540 (umhos/cn)	0.00	1.00		Field Test
Static Water Level	NA	4.38 (ft)	0.00	1.00		Field Test
Temperature	NA	14.2 (°C)	0.00	1.00		Field Test
Turbidity	NA	180 (NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. NYS-DOH ELAP/NELAC laboratory certification is not available for these field parameters.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-16
Lab Sample ID: 15020213-04 (AS03350)

Collection Date: 02/10/2015 11:15
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	02/10/2015 11:15	MEB	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen	7782-44-7	2.75 (mg/L)	0.00	1.00		Field Test
pH	NA	6.94 (pH)	0.00	1.00		Field Test
Reduction Potential	NA	12.0 (mV)	0.00	1.00		Field Test
Specific Conductance	NA	989 (umhos/cn)	0.00	1.00		Field Test
Static Water Level	NA	3.49 (ft)	0.00	1.00		Field Test
Temperature	NA	8.70 (°C)	0.00	1.00		Field Test
Turbidity	NA	344 (NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. NYS-DOH ELAP/NELAC laboratory certification is not available for these field parameters.



Analytical Sample Results

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7
Lab Sample ID: 15020213-05 (AS03351)

Collection Date: 02/10/2015 14:30
Sample Matrix: WATER
Received Date: 02/10/2015 16:35
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	Field Test	Field Analysis	02/10/2015 14:30	MEB	NA	NA
Analyte	CAS No.	Result	PQL	Dilution Factor	Flags	File ID
Dissolved Oxygen	7782-44-7	1.76 (mg/L)	0.00	1.00		Field Test
pH	NA	7.55 (pH)	0.00	1.00		Field Test
Reduction Potential	NA	73.0 (mV)	0.00	1.00		Field Test
Specific Conductance	NA	1530 (umhos/cn)	0.00	1.00		Field Test
Static Water Level	NA	0.00 (ft)	0.00	1.00		Field Test
Temperature	NA	14.3 (°C)	0.00	1.00		Field Test
Turbidity	NA	11.5 (NTU)	0.00	1.00		Field Test

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Note: This is field generated data. NYS-DOH ELAP/NELAC laboratory certification is not available for these field parameters.

Quality Control Samples (Field)



**Quality Control Results
Matrix Spike Sample (MS)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER(DISSOLVED)
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-78	EPA 200.7	02/17/2015 14:40	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	5.09	0.0500	1.00		ICP2-1502-78

Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MS (mg/L)	MS % Rec.	Q ¹ (%)	Limits
Iron	7439-89-6	0.124	5.01	5.09	99.2		75.0-125

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\$) NYSDOH does not currently offer certification for this analyte.



Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER(DISSOLVED)
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-79	EPA 200.7	02/17/2015 14:43	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	5.09	0.0500	1.00		ICP2-1502-79
Precision						
Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MSD (mg/L)	MSD % Rec.	Limits Q ¹ (%)
Iron	7439-89-6	0.124	5.01	5.09	99.2	75.0-125
						99.2 0.00 20

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\$) NYSDOH does not currently offer certification for this analyte.



**Quality Control Results
Matrix Spike Sample (MS)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MS
Lab Sample ID: 15020213-05M (AS03351M)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 16:07	LMS	NA	NA	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	10.8	0.500	1.00		776

Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MS (mg/L)	MS % Rec.	Q ¹	Limits (%)
Total Organic Carbon	OC002	0.746	10.1	10.8	100		80.0-120

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Matrix Spike Duplicate (MSD)
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: MW-CHA-RFI-7 MSD
Lab Sample ID: 15020213-05K (AS03351K)

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 16:24	LMS	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Total Organic Carbon	OC002	11.5	0.500	1.00		776
Analyte Spiked	CAS No.	Sample (mg/L)	Added (mg/L)	MSD (mg/L)	MSD % Rec.	Precision
Total Organic Carbon	OC002	0.746	10.1	11.5	106	80.0-120
					Q ¹	MS % Rec.
					Limits (%)	RPD
						Q ¹ (%)
						Limits (%)

¹Qualifier column where ^{1*} denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Quality Control Samples (Lab)

10



Quality Control Results
Method Blank

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03195B)
Lab Sample ID: VBLK-93

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-5	EPA Method 8260C	02/11/2015 10:57	TJH	NA	NA	N/A
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS11-27-5
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS11-27-5
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS11-27-5
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS11-27-5
1,1-Dichloroethane	75-34-3	ND	1.00	1.00	U	MS11-27-5
1,1-Dichloroethene	75-35-4	ND	1.00	1.00	U	MS11-27-5
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS11-27-5
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS11-27-5
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS11-27-5
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS11-27-5
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS11-27-5
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS11-27-5
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS11-27-5
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS11-27-5
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS11-27-5
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS11-27-5
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS11-27-5
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS11-27-5
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS11-27-5
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS11-27-5
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS11-27-5
2-Butanone	78-93-3	ND	5.00	1.00	U	MS11-27-5
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS11-27-5
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS11-27-5
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS11-27-5
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS11-27-5
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS11-27-5
Acetone	67-64-1	ND	10.0	1.00	U	MS11-27-5
Benzene	71-43-2	ND	1.00	1.00	U	MS11-27-5
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS11-27-5
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS11-27-5
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS11-27-5
Bromoform	75-25-2	ND	1.00	1.00	U	MS11-27-5
Bromomethane	74-83-9	ND	1.00	1.00	U	MS11-27-5
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS11-27-5
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS11-27-5
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS11-27-5
Chloroethane	75-00-3	ND	1.00	1.00	U	MS11-27-5
Chloroform	67-66-3	ND	1.00	1.00	U	MS11-27-5
Chloromethane	74-87-3	ND	1.00	1.00	U	MS11-27-5
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS11-27-5
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS11-27-5
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS11-27-5
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS11-27-5
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS11-27-5

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**Quality Control Results
Method Blank**

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03195B)
Lab Sample ID: VBLK-93

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-5	EPA Method 8260C	02/11/2015 10:57	TJH	NA	NA	N/A

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS11-27-5
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS11-27-5
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS11-27-5
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS11-27-5
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS11-27-5
MTBE	1634-04-4	ND	1.00	1.00	U	MS11-27-5
Naphthalene	91-20-3	ND	1.00	1.00	U	MS11-27-5
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS11-27-5
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS11-27-5
o-Xylene	95-47-6	ND	1.00	1.00	U	MS11-27-5
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS11-27-5
Styrene	100-42-5	ND	1.00	1.00	U	MS11-27-5
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS11-27-5
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS11-27-5
Toluene	108-88-3	ND	1.00	1.00	U	MS11-27-5
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS11-27-5
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS11-27-5
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS11-27-5
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS11-27-5
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS11-27-5
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS11-27-5
Vinyl chloride	75-01-4	ND	1.00	1.00	U	MS11-27-5

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	96.6	76.5-132		MS11-27-5
Dibromofluoromethane	1868-53-7	105	78.0-126		MS11-27-5
Toluene-d8	2037-26-5	94.7	82.0-115		MS11-27-5
1,2-Dichloroethane-d4	17060-07-0	102	83.2-120		MS11-27-5

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample (LCS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03195L)
Lab Sample ID: LCS-93

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS11-27-3	EPA Method 8260C	02/11/2015 09:55	TJH	NA	NA	N/A

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
1,1,1,2-Tetrachloroethane	630-20-6	40.0	42.3	106		70.0-130
1,1,1-Trichloroethane	71-55-6	40.0	45.1	113		70.0-130
1,1,2,2-Tetrachloroethane	79-34-5	40.0	39.0	97.5		70.0-130
1,1,2-Trichloroethane	79-00-5	40.0	40.9	102		70.0-130
1,1-Dichloroethane	75-34-3	40.0	38.1	95.2		70.0-130
1,1-Dichloroethene	75-35-4	40.0	43.8	109		70.0-130
1,1-Dichloropropene	563-58-6	40.0	45.5	114		70.0-130
1,2,3-Trichlorobenzene	87-61-6	40.0	37.8	94.5		70.0-130
1,2,3-Trichloropropane	96-18-4	40.0	38.2	95.5		70.0-130
1,2,4-Trichlorobenzene	120-82-1	40.0	39.6	99.0		70.0-130
1,2,4-Trimethylbenzene	95-63-6	40.0	38.2	95.4		70.0-130
1,2-Dibromo-3-chloropropane	96-12-8	40.0	38.5	96.2		70.0-130
1,2-Dibromoethane	106-93-4	40.0	41.9	105		70.0-130
1,2-Dichlorobenzene	95-50-1	40.0	37.8	94.4		70.0-130
1,2-Dichloroethane	107-06-2	40.0	42.7	107		70.0-130
1,2-Dichloropropane	78-87-5	40.0	42.9	107		70.0-130
1,3,5-Trimethylbenzene	108-67-8	40.0	39.4	98.6		70.0-130
1,3-Dichlorobenzene	541-73-1	40.0	38.7	96.8		70.0-130
1,3-Dichloropropane	142-28-9	40.0	40.9	102		70.0-130
1,4-Dichlorobenzene	106-46-7	40.0	38.0	95.0		70.0-130
2,2-Dichloropropane	594-20-7	40.0	48.3	121		70.0-130
2-Butanone	78-93-3	40.0	40.7	102		70.0-130
2-Chlorotoluene	95-49-8	40.0	39.1	97.8		70.0-130
2-Hexanone	591-78-6	40.0	38.8	96.9		70.0-130
4-Chlorotoluene	106-43-4	40.0	38.8	97.0		70.0-130
4-Isopropyltoluene	99-87-6	40.0	39.0	97.6		70.0-130
4-Methyl-2-pentanone	108-10-1	40.0	40.1	100		70.0-130
Acetone	67-64-1	40.0	31.3	78.2		70.0-130
Benzene	71-43-2	40.0	43.5	109		70.0-130
Bromobenzene	108-86-1	40.0	38.3	95.8		70.0-130
Bromochloromethane	74-97-5	40.0	43.9	110		70.0-130
Bromodichloromethane	75-27-4	40.0	44.8	112		70.0-130
Bromoform	75-25-2	40.0	48.2	121		70.0-130
Bromomethane	74-83-9	40.0	47.1	118		70.0-130
Carbon disulfide	75-15-0	40.0	43.4	109		70.0-130
Carbon tetrachloride	56-23-5	40.0	46.1	115		70.0-130
Chlorobenzene	108-90-7	40.0	39.4	98.4		70.0-130
Chloroethane	75-00-3	40.0	44.6	111		70.0-130
Chloroform	67-66-3	40.0	43.3	108		70.0-130
Chloromethane	74-87-3	40.0	40.7	102		70.0-130
cis-1,2-Dichloroethene	156-59-2	40.0	44.5	111		70.0-130
cis-1,3-Dichloropropene	10061-01-5	40.0	44.4	111		70.0-130
Dibromochloromethane	124-48-1	40.0	45.9	115		70.0-130
Dibromomethane	74-95-3	40.0	44.5	111		70.0-130
Dichlorodifluoromethane	75-71-8	40.0	41.5	104		70.0-130
Ethylbenzene	100-41-4	40.0	40.5	101		70.0-130
Hexachlorobutadiene	87-68-3	40.0	39.6	98.9		70.0-130
Isopropylbenzene	98-82-8	40.0	39.4	98.4		70.0-130
m&p-Xylene	136777-61-2	80.0	81.2	102		70.0-130
Methylene chloride	75-09-2	40.0	39.7	99.3		70.0-130
MTBE	1634-04-4	40.0	46.5	116		70.0-130
Naphthalene	91-20-3	40.0	38.1	95.2		70.0-130
n-Butylbenzene	104-51-8	40.0	38.8	97.0		70.0-130

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Quality Control Results
Lab Control Sample (LCS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03195L)
Lab Sample ID: LCS-93

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS11-27-3	EPA Method 8260C	02/11/2015 09:55	TJH	NA	NA	N/A

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
n-Propylbenzene	103-65-1	40.0	39.4	98.6		70.0-130
o-Xylene	95-47-6	40.0	39.4	98.5		70.0-130
sec-Butylbenzene	135-98-8	40.0	38.8	96.9		70.0-130
Styrene	100-42-5	40.0	39.5	98.7		70.0-130
tert-Butylbenzene	98-06-6	40.0	38.4	96.1		70.0-130
Tetrachloroethene	127-18-4	40.0	43.3	108		70.0-130
Toluene	108-88-3	40.0	41.4	104		70.0-130
Total Xylenes	1330-20-7	120	121	101		70.0-130
trans-1,2-Dichloroethene	156-60-5	40.0	45.8	114		70.0-130
trans-1,3-Dichloropropene	10061-02-6	40.0	44.8	112		70.0-130
Trichloroethene	79-01-6	40.0	47.3	118		70.0-130
Trichlorofluoromethane	75-69-4	40.0	50.4	126		70.0-130
Vinyl acetate	108-05-4	40.0	42.4	106		70.0-130
Vinyl chloride	75-01-4	40.0	41.8	104		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	97.2	76.5-132		MS11-27-3
Dibromofluoromethane	1868-53-7	99.6	78.0-126		MS11-27-3
Toluene-d8	2037-26-5	98.0	82.0-115		MS11-27-3
1,2-Dichloroethane-d4	17060-07-0	99.2	83.2-120		MS11-27-3

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



**Quality Control Results
Method Blank**

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03347B)
Lab Sample ID: VBLK-92

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS10-365-7	EPA Method 8260C	02/12/2015 11:26	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm
Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
1,1,1,2-Tetrachloroethane	630-20-6	ND	1.00	1.00	U	MS10-365-7
1,1,1-Trichloroethane	71-55-6	ND	1.00	1.00	U	MS10-365-7
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.00	1.00	U	MS10-365-7
1,1,2-Trichloroethane	79-00-5	ND	1.00	1.00	U	MS10-365-7
1,1-Dichloroethane	75-34-3	ND	1.00	1.00	U	MS10-365-7
1,1-Dichloroethene	75-35-4	ND	1.00	1.00	U	MS10-365-7
1,1-Dichloropropene	563-58-6	ND	1.00	1.00	U	MS10-365-7
1,2,3-Trichlorobenzene	87-61-6	ND	1.00	1.00	U	MS10-365-7
1,2,3-Trichloropropane	96-18-4	ND	1.00	1.00	U	MS10-365-7
1,2,4-Trichlorobenzene	120-82-1	ND	1.00	1.00	U	MS10-365-7
1,2,4-Trimethylbenzene	95-63-6	ND	1.00	1.00	U	MS10-365-7
1,2-Dibromo-3-chloropropane	96-12-8	ND	1.00	1.00	U	MS10-365-7
1,2-Dibromoethane	106-93-4	ND	1.00	1.00	U	MS10-365-7
1,2-Dichlorobenzene	95-50-1	ND	1.00	1.00	U	MS10-365-7
1,2-Dichloroethane	107-06-2	ND	1.00	1.00	U	MS10-365-7
1,2-Dichloropropane	78-87-5	ND	1.00	1.00	U	MS10-365-7
1,3,5-Trimethylbenzene	108-67-8	ND	1.00	1.00	U	MS10-365-7
1,3-Dichlorobenzene	541-73-1	ND	1.00	1.00	U	MS10-365-7
1,3-Dichloropropane	142-28-9	ND	1.00	1.00	U	MS10-365-7
1,4-Dichlorobenzene	106-46-7	ND	1.00	1.00	U	MS10-365-7
2,2-Dichloropropane	594-20-7	ND	1.00	1.00	U	MS10-365-7
2-Butanone	78-93-3	ND	5.00	1.00	U	MS10-365-7
2-Chlorotoluene	95-49-8	ND	1.00	1.00	U	MS10-365-7
2-Hexanone	591-78-6	ND	5.00	1.00	U	MS10-365-7
4-Chlorotoluene	106-43-4	ND	1.00	1.00	U	MS10-365-7
4-Isopropyltoluene	99-87-6	ND	1.00	1.00	U	MS10-365-7
4-Methyl-2-pentanone	108-10-1	ND	5.00	1.00	U	MS10-365-7
Acetone	67-64-1	ND	10.0	1.00	U	MS10-365-7
Benzene	71-43-2	ND	1.00	1.00	U	MS10-365-7
Bromobenzene	108-86-1	ND	1.00	1.00	U	MS10-365-7
Bromochloromethane	74-97-5	ND	1.00	1.00	U	MS10-365-7
Bromodichloromethane	75-27-4	ND	1.00	1.00	U	MS10-365-7
Bromoform	75-25-2	ND	1.00	1.00	U	MS10-365-7
Bromomethane	74-83-9	ND	1.00	1.00	U	MS10-365-7
Carbon disulfide	75-15-0	ND	1.00	1.00	U	MS10-365-7
Carbon tetrachloride	56-23-5	ND	1.00	1.00	U	MS10-365-7
Chlorobenzene	108-90-7	ND	1.00	1.00	U	MS10-365-7
Chloroethane	75-00-3	ND	1.00	1.00	U	MS10-365-7
Chloroform	67-66-3	ND	1.00	1.00	U	MS10-365-7
Chloromethane	74-87-3	ND	1.00	1.00	U	MS10-365-7
cis-1,2-Dichloroethene	156-59-2	ND	1.00	1.00	U	MS10-365-7
cis-1,3-Dichloropropene	10061-01-5	ND	1.00	1.00	U	MS10-365-7
Dibromochloromethane	124-48-1	ND	1.00	1.00	U	MS10-365-7
Dibromomethane	74-95-3	ND	1.00	1.00	U	MS10-365-7
Dichlorodifluoromethane	75-71-8	ND	1.00	1.00	U	MS10-365-7

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**Quality Control Results
Method Blank**

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03347B)
Lab Sample ID: VBLK-92

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS10-365-7	EPA Method 8260C	02/12/2015 11:26	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm

Analyte	CAS No.	Result (ug/L)	PQL	Dilution Factor	Flags	File ID
Ethylbenzene	100-41-4	ND	1.00	1.00	U	MS10-365-7
Hexachlorobutadiene	87-68-3	ND	1.00	1.00	U	MS10-365-7
Isopropylbenzene	98-82-8	ND	1.00	1.00	U	MS10-365-7
m&p-Xylene	136777-61-2	ND	1.00	1.00	U	MS10-365-7
Methylene chloride	75-09-2	ND	1.00	1.00	U	MS10-365-7
MTBE	1634-04-4	ND	1.00	1.00	U	MS10-365-7
Naphthalene	91-20-3	ND	1.00	1.00	U	MS10-365-7
n-Butylbenzene	104-51-8	ND	1.00	1.00	U	MS10-365-7
n-Propylbenzene	103-65-1	ND	1.00	1.00	U	MS10-365-7
o-Xylene	95-47-6	ND	1.00	1.00	U	MS10-365-7
sec-Butylbenzene	135-98-8	ND	1.00	1.00	U	MS10-365-7
Styrene	100-42-5	ND	1.00	1.00	U	MS10-365-7
tert-Butylbenzene	98-06-6	ND	1.00	1.00	U	MS10-365-7
Tetrachloroethene	127-18-4	ND	1.00	1.00	U	MS10-365-7
Toluene	108-88-3	ND	1.00	1.00	U	MS10-365-7
Total Xylenes	1330-20-7	ND	1.00	1.00	U	MS10-365-7
trans-1,2-Dichloroethene	156-60-5	ND	1.00	1.00	U	MS10-365-7
trans-1,3-Dichloropropene	10061-02-6	ND	1.00	1.00	U	MS10-365-7
Trichloroethene	79-01-6	ND	1.00	1.00	U	MS10-365-7
Trichlorofluoromethane	75-69-4	ND	1.00	1.00	U	MS10-365-7
Vinyl acetate	108-05-4	ND	1.00	1.00	U	MS10-365-7
Vinyl chloride	75-01-4	ND	1.00	1.00	U	MS10-365-7

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	105	76.5-132		MS10-365-7
Dibromofluoromethane	1868-53-7	102	78.0-126		MS10-365-7
Toluene-d8	2037-26-5	102	82.0-115		MS10-365-7
1,2-Dichloroethane-d4	17060-07-0	111	83.2-120		MS10-365-7

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample (LCS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03347L)
Lab Sample ID: LCS-07

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1: MS10-365-3	EPA Method 8260C	02/12/2015 09:43	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
1,1,1,2-Tetrachloroethane	630-20-6	40.0	40.3	101		70.0-130
1,1,1-Trichloroethane	71-55-6	40.0	42.1	105		70.0-130
1,1,2,2-Tetrachloroethane	79-34-5	40.0	38.7	96.7		70.0-130
1,1,2-Trichloroethane	79-00-5	40.0	40.9	102		70.0-130
1,1-Dichloroethane	75-34-3	40.0	43.5	109		70.0-130
1,1-Dichloroethene	75-35-4	40.0	41.5	104		70.0-130
1,1-Dichloropropene	563-58-6	40.0	43.3	108		70.0-130
1,2,3-Trichlorobenzene	87-61-6	40.0	39.7	99.2		70.0-130
1,2,3-Trichloropropane	96-18-4	40.0	39.9	99.9		70.0-130
1,2,4-Trichlorobenzene	120-82-1	40.0	43.3	108		70.0-130
1,2,4-Trimethylbenzene	95-63-6	40.0	40.4	101		70.0-130
1,2-Dibromo-3-chloropropane	96-12-8	40.0	42.0	105		70.0-130
1,2-Dibromoethane	106-93-4	40.0	38.9	97.1		70.0-130
1,2-Dichlorobenzene	95-50-1	40.0	39.1	97.7		70.0-130
1,2-Dichloroethane	107-06-2	40.0	43.9	110		70.0-130
1,2-Dichloropropene	78-87-5	40.0	42.8	107		70.0-130
1,3,5-Trimethylbenzene	108-67-8	40.0	39.6	99.0		70.0-130
1,3-Dichlorobenzene	541-73-1	40.0	38.1	95.2		70.0-130
1,3-Dichloropropane	142-28-9	40.0	41.6	104		70.0-130
1,4-Dichlorobenzene	106-46-7	40.0	38.0	95.1		70.0-130
2,2-Dichloropropane	594-20-7	40.0	43.8	109		70.0-130
2-Butanone	78-93-3	40.0	38.7	96.8		70.0-130
2-Chlorotoluene	95-49-8	40.0	39.1	97.9		70.0-130
2-Hexanone	591-78-6	40.0	40.6	101		70.0-130
4-Chlorotoluene	106-43-4	40.0	40.1	100		70.0-130
4-Isopropyltoluene	99-87-6	40.0	39.6	99.1		70.0-130
4-Methyl-2-pentanone	108-10-1	40.0	40.9	102		70.0-130
Acetone	67-64-1	40.0	31.4	78.5		70.0-130
Benzene	71-43-2	40.0	41.7	104		70.0-130
Bromobenzene	108-86-1	40.0	39.1	97.7		70.0-130
Bromochloromethane	74-97-5	40.0	44.7	112		70.0-130
Bromodichloromethane	75-27-4	40.0	41.4	104		70.0-130
Bromoform	75-25-2	40.0	44.7	112		70.0-130
Bromomethane	74-83-9	40.0	51.8	130		70.0-130
Carbon disulfide	75-15-0	40.0	39.6	99.1		70.0-130
Carbon tetrachloride	56-23-5	40.0	42.4	106		70.0-130
Chlorobenzene	108-90-7	40.0	40.2	100		70.0-130
Chloroethane	75-00-3	40.0	39.1	97.7		70.0-130
Chloroform	67-66-3	40.0	42.0	105		70.0-130
Chloromethane	74-87-3	40.0	40.4	101		70.0-130
cis-1,2-Dichloroethene	156-59-2	40.0	39.9	99.6		70.0-130
cis-1,3-Dichloropropene	10061-01-5	40.0	42.6	106		70.0-130
Dibromochloromethane	124-48-1	40.0	41.1	103		70.0-130
Dibromomethane	74-95-3	40.0	39.1	97.8		70.0-130
Dichlorodifluoromethane	75-71-8	40.0	40.8	102		70.0-130
Ethylbenzene	100-41-4	40.0	40.9	102		70.0-130
Hexachlorobutadiene	87-68-3	40.0	41.2	103		70.0-130
Isopropylbenzene	98-82-8	40.0	40.6	102		70.0-130
m&p-Xylene	136777-61-2	80.0	85.7	107		70.0-130
Methylene chloride	75-09-2	40.0	38.3	95.8		70.0-130
MTBE	1634-04-4	40.0	41.9	105		70.0-130
Naphthalene	91-20-3	40.0	35.5	88.6		70.0-130
n-Butylbenzene	104-51-8	40.0	40.3	101		70.0-130

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Quality Control Results
Lab Control Sample (LCS)
Job Number: 15020213

Pace Analytical Services, Inc.
 2190 Technology Drive
 Schenectady, NY 12308
 Phone: 518.346.4592
 Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03347L)
Lab Sample ID: LCS-07

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	MS10-365-3	EPA Method 8260C	02/12/2015 09:43	TJH	NA	NA	Restek, Rtx-VMS, 40 m, 0.18 mm ID, 1.00 µm

Analyte Spiked	CAS No.	Added (ug/L)	LCS (ug/L)	LCS % Rec.	Q ¹	Limits (%)
n-Propylbenzene	103-65-1	40.0	40.9	102		70.0-130
o-Xylene	95-47-6	40.0	41.2	103		70.0-130
sec-Butylbenzene	135-98-8	40.0	39.3	98.1		70.0-130
Styrene	100-42-5	40.0	41.3	103		70.0-130
tert-Butylbenzene	98-06-6	40.0	37.2	93.1		70.0-130
Tetrachloroethene	127-18-4	40.0	41.3	103		70.0-130
Toluene	108-88-3	40.0	39.7	99.4		70.0-130
Total Xylenes	1330-20-7	120	127	106		70.0-130
trans-1,2-Dichloroethene	156-60-5	40.0	40.5	101		70.0-130
trans-1,3-Dichloropropene	10061-02-6	40.0	42.9	107		70.0-130
Trichloroethene	79-01-6	40.0	42.0	105		70.0-130
Trichlorofluoromethane	75-69-4	40.0	38.4	95.9		70.0-130
Vinyl acetate	108-05-4	40.0	44.2	110		70.0-130
Vinyl chloride	75-01-4	40.0	46.6	116		70.0-130

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

Surrogate	CAS No.	% Recovery	Limits (%)	Q ¹	File ID
Bromofluorobenzene	460-00-4	98.5	76.5-132		MS10-365-3
Dibromofluoromethane	1868-53-7	102	78.0-126		MS10-365-3
Toluene-d8	2037-26-5	102	82.0-115		MS10-365-3
1,2-Dichloroethane-d4	17060-07-0	110	83.2-120		MS10-365-3

¹Qualifier column where '*' denotes value outside the control limits or 'D' denotes value was diluted.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results Method Blank

Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03351B)
Lab Sample ID: PBW-55

Collection Date: N/A
Sample Matrix: DISSOLVED
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-69	EPA 200.7	02/17/2015 14:18	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID
Iron	7439-89-6	ND	0.0500	1.00	U	ICP2-1502-69

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\\$) NYSDOH does not currently offer certification for this analyte.



**Quality Control Results
Lab Control Sample (LCS)**
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03351L)
Lab Sample ID: LCS-55

Collection Date: N/A
Sample Matrix: DISSOLVED
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	ICP2-1502-70	EPA 200.7	02/17/2015 14:20	LMS	NA	NA	NA
Prep 1:	5405	EPA 200.7	02/12/2015 13:08	CYC	50.0 mL	50.0 mL	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q ¹	Limits (%)
Iron	7439-89-6	5.01	5.02	100		85.0-115

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

(\$) NYSDOH does not currently offer certification for this analyte.



Quality Control Results

Method Blank

Job Number: 15020213

Pace Analytical Services, Inc.

2190 Technology Drive

Schenectady, NY 12308

Phone: 518.346.4592

Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Method Blank (AS03351B)
Lab Sample ID: BLANK-02

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 13:34	LMS	NA	NA	NA
Analyte	CAS No.	Result (mg/L)	PQL	Dilution Factor	Flags	File ID	
Total Organic Carbon	OC002	ND	0.500	1.00	U	776	

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.



Quality Control Results
Lab Control Sample (LCS)
Job Number: 15020213

Pace Analytical Services, Inc.
2190 Technology Drive
Schenectady, NY 12308
Phone: 518.346.4592
Fax: 518.381.6055

Client: Leader Consulting Services, Inc.
Project: VAILS GATE MANUFACTURING
Client Sample ID: Lab Control Sample (AS03351L)
Lab Sample ID: LCS-02

Collection Date: N/A
Sample Matrix: WATER
Received Date: N/A
Percent Solid: N/A

	Batch ID	Method	Date	Analyst	Init Wt./Vol.	Final Vol.	Column
Analysis 1:	776	SM 5310B	02/18/2015 11:35	LMS	NA	NA	NA

Analyte Spiked	CAS No.	Added (mg/L)	LCS (mg/L)	LCS % Rec.	Q ¹	Limits (%)
Total Organic Carbon	OC002	10.0	9.94	99.4		80.0-120

¹Qualifier column where '*' denotes value outside the control limits. Note: RPD criteria does not apply if either the sample and duplicate sample are not detected.

ND: Denotes analyte not detected at a concentration greater than the PQL.

PQL (Practical Quantitation Limit). Denotes lowest analyte concentration reportable for the sample.

Subcontract Analysis



575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

**2190 Technology Drive
Schenectady, NY 12308**

Attn To : William A. Kotas

Collected : 2/10/2015 10:40:00 AM
Received : 2/12/2015 11:00:00 AM AS03347
Collected By Client

<u>Analytical Method:</u>	E300.0 :	<u>Analyst:</u>	bka			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Sulfate	< 5.00		1	mg/L	02/21/2015 7:03 AM	Container-01 of 01

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1502810-001

Client Sample ID: FIELD DUPLICATE-01

Sample Information:

Type : Aqueous

Origin:

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

PRELIMINARY

Test results meet the requirements of NELAC unless otherwise noted.

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Page 1 of 5



575 Broad Hollow Road , Melville, NY 11747
TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

2190 Technology Drive
Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 2/10/2015 2:30:00 PM

Received : 2/12/2015 11:00:00 AM AS03351

Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : **1502810-002**
Client Sample ID: **MW-CHA-RFI-7**

Sample Information:

Type : Aqueous

Origin:

Parameter(s)	Results	Qualifier	D.F.	Units	Analyst:	bka
Sulfate	39.9		1	mg/L	02/21/2015 7:16 AM	Container-01 of 03

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Project Manager

PRELIMINARY

Test results meet the requirements of NELAC unless otherwise noted.

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Date Reported :

Page 2 of 5



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TEL: (631) 694-3040 FAX: (631) 420-8436
NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

**2190 Technology Drive
Schenectady, NY 12308**

Attn To : William A. Kotas

Collected : 2/10/2015 11:30:00 AM
Received : 2/12/2015 11:00:00 AM AS03349
Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1502810-003
Client Sample ID: MW-14

Sample Information:

Type : Aqueous

Origin:

<u>Analytical Method:</u>	E300.0 :	<u>Analyst:</u>	bka			
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Analyzed:</u>	<u>Container:</u>
Sulfate	31.2		1	mg/L	02/21/2015 7:57 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

PRELIMINARY

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Page 3 of 5



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NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

2190 Technology Drive
Schenectady, NY 12308

Attn To : William A. Kotas

Collected : 2/10/2015 11:15:00 AM
Received : 2/12/2015 11:00:00 AM AS03350
Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : **1502810-004**
Client Sample ID: **MW-16**

Sample Information:

Type : Aqueous

Origin:

Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Analyst: bka	Container:
Sulfate	18.8		1	mg/L	02/21/2015 8:10 AM		Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

PRELIMINARY
Test results meet the requirements of NELAC unless otherwise noted.

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NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

**2190 Technology Drive
Schenectady, NY 12308**

Attn To : William A. Kotas

Collected : 2/10/2015 10:42:00 AM
Received : 2/12/2015 11:00:00 AM AS03348
Collected By Client

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1502810-005
Client Sample ID: MW-5A/AR

Sample Information:

Type : Aqueous

Origin:

Analytical Method:	E300.0	Analyst:	bka			
Parameter(s)	Results	Qualifier	D.F.	Units	Analyzed:	Container:
Sulfate	< 5.00		1	mg/L	02/21/2015 8:24 AM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

r = Reporting limit > MDL and < LOQ, Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported :

Project Manager

PRELIMINARY

Test results meet the requirements of NELAC unless otherwise noted.

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.

2190 Technology Drive, Schenectady, NY 12308
Telephone (518) 346-4592 Fax (518) 381-6055
www.pacelabs.com

PAGE 1 OF 1

DISPOSAL REQUIREMENTS: (To be filled in by Client)										
<input type="checkbox"/> RETURN TO CLIENT	<input type="checkbox"/> DISPOSAL BY RECEIVING LAB									
<input type="checkbox"/> ARCHIVAL BY RECEIVING LAB	<input type="checkbox"/> Additional charges incurred for disposal (if hazardous) or archival. Call for details.									
ENTER ANALYSIS AND METHOD NUMBER REQUESTED										
PROJECT# / PROJECT NAME:	PRESERVATIVE CODE:									
15020213	BOTTLE TYPE:									
LOCATION (CITY/STATE) ADDRESS:	BOTTLE SIZE:									
NY	NUMBER OF CONTAINERS:									
SAMPLED BY: (Please Print)	REMARKS:									
Nick Nicholas	15020213									
SAMPLING FIRM:	2/24/2015									
	15020213									
NAME OF COURIER (IF USED):	803									
	2/16/2015									
ELECTRONIC RESULTS	Nicholas.Nicholas@pacelabs.com	LAB								
ELECTRONIC RESULTS	Nicole.Johnson@pacelabs.com	SAMPLE ID (LAB USE ONLY)								
SAMPLE ID	DATE	TIME	MATRIX	COMP	GRAB	AS03347	1	X		
FIELD DUPLICATE-01	2/10/15	10:40	L	GRAB	AS03348	1	X			
MWV-5A/AR	2/10/15	10:42	L	GRAB	AS03349	1	X			
MWV-14	2/10/15	11:30	L	GRAB	AS03350	1	X			
MWV-16	2/10/15	11:15	L	GRAB	AS03351	3	X			
MWV-CHA-RFI-7	2/10/15	14:30	L	GRAB	AS03351					
AMBIENT OR CHILLED:	TEMP:	41	COC TAPE:	Y	RECEIVED BY:	REINQUISITION BY:	PROPERLY PRESERVED:	Y	N	OTHER NOTES: Data Package [LEVEL-4] EDD. EQUIS-DEC-DEC
RECEIVED BROKEN OR LEAKING:	Y	N	COC DISCREPANCIES:	Y	RECEIVED BY:	REINQUISITION BY:	RECEIVED BY:	Y	N	RECEIVED BY:
SIGNATURE: <i>J. De</i>	SIGNATURE: <i>V. A. F. D. G.</i>	PRINTED NAME: <i>John DeGraw</i>	PRINTED NAME: <i>Jeanne Speno</i>	COMPANY: <i>PACEL</i>	COMPANY: <i>PACEL</i>	COMPANY: <i>PACEL</i>	SIGNATURE: <i>J. De</i>	SIGNATURE: <i>J. De</i>	SIGNATURE: <i>J. De</i>	SIGNATURE: <i>J. De</i>
PRINTED NAME: <i>J. De</i>	COMPANY: <i>PACEL</i>	DATE/TIME: <i>2/11/15 1500</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>	DATE/TIME: <i>2/12/15 1000</i>
										SILOGINMDCOCS

Pace Analytical Services, Inc.
150202132

<15020213P2>



Sample Condition Upon Receipt

DUPLICATE

CLIENT NAME: Leader
PROJECT: Val 2 Gate

COURIER: FedEx <input type="checkbox"/>	UPS <input type="checkbox"/>	Client <input type="checkbox"/>	Pace <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	CUSTODY SEAL PRESENT: Yes <input type="checkbox"/> Other <input type="checkbox"/>		No <input checked="" type="checkbox"/> INTACT: Yes <input type="checkbox"/> ICE USED: Wet <input checked="" type="checkbox"/> Blue <input type="checkbox"/> N/A <input type="checkbox"/>	COOLER TEMPERATURE (°C): <u>5.5°C</u> None <input type="checkbox"/>	
					Temp should be above freezing to 6°C				
COMMENTS:									
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Sampler Name / Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
- Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
Filtered volume received for Dissolved tests:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								
- Includes date/time/ID/Analysis									
All containers needing preservation have been checked:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
All containers needing preservation are in compliance with EPA recommendation:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
- Exceptions that are not checked: VOA Headspace in VOA Vials (>6mm):									
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A								
Trip Blank Lot #:	<u>Q2915</u>								
Line-Out (Includes Copying Shipping Documents and verifying sample pH): <u>PAW 2/10/15</u>									
Log In (Includes notifying PM of any discrepancies and documenting in LIMS): <u>PAW 2/10/15</u>									
Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook): <u>PAW 2/10/15</u>									
Sample Receipt form filled in: <u>PAW 2/10/15</u>									



Attachment B

Data Validation Summary

Data Usability Summary Report – March 2015

Vails Gate
737.002

Data Usability

The Quality Assurance Project Plan (“QAPP”) prepared for this project, by ME Holvey Consulting, LLC (“MEHC”) presents the policies, organization, objectives, functional activities, and specific Quality Assurance (“QA”) and Quality Control (“QC”) measures designed to achieve the data quality goals associated with this investigation. The QAPP identifies procedures for sample preparation and handling, sample chain-of-custody, laboratory analyses, and reporting that were implemented during this investigation to ensure the accuracy and integrity of the data generated during the investigation.

Leader Consulting Services, Inc. conducted the Site Investigation and Remedial Activities of the Vails Gate site.

Data Summary

The Data Usability Review and Data Validation Compliance Chart has been completed for the laboratory deliverable packages generated by Pace Analytical Laboratories, Inc. (“Pace”), pertaining to samples collected at the Vails Gate Site on February 10, 2015. A total of six (6) samples were collected during the February 2015 sampling event and analyzed for VOCs, metals, and wet chemistry. The following USEPA Methodologies were used to analyze these samples for the following analytes:

Volatiles (VOCs)	USEPA Method 8260
Dissolved Iron by ICP	USEPA Method 200.7 Rev. 4.4
Miscellaneous Field Analysis	Dissolved Oxygen, pH, Reduction Potential, Temperature, Turbidity
Total Organic Carbon (“TOC”)	USEPA SM 5310B-00.11
Sulfate	USEPA 300.0

Trip/Holding blanks, field duplicate, surrogates, internal standards, reference samples, matrix spikes, and matrix spike duplicates were also processed.

Samples were collected and received on the following schedule:

Sample Package ID	Date Collected	Date Received by Pace	Sample Matrix	Requested Analyses	Sample Temperature (°C)
15020213	2/10/2015	2/10/2015	Water	TCL 8260 Metals Misc. Field Analysis Nitrate TOC Sulfate	5.5

Data usability and validation was performed with guidance from the most current editions of the USEPA CLP National Functional Guidelines for Inorganic and Organic Data Review. The following items were reviewed:

- Data Completeness;
- Custody Documentation;
- Holding Times;
- Sample Blanks Review;
- Field Duplicate Samples;
- Matrix Spike Samples and Duplicates; and
- Control Spike/Laboratory Control Samples.

Those items showing deficiencies are discussed in the attached Data Validation Compliance Chart. All others were found to be acceptable as outlined in the above-mentioned usability procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the reported data, and generated in compliance with protocol requirements.

In summary, sample processing was conducted with compliance to protocol requirements and with adherence to quality criteria and the reported results are considered “usable”.

The Data Validation Compliance Chart is also included with this report.

Accuracy, Precision, and Sensitivity of Analyses

The fundamental QA objective with respect to the accuracy, precision, and sensitivity of analytical data is to achieve the QC acceptance of each analytical protocol. Accuracy and precision are determined using matrix spike (“MS”) and matrix spike duplicate (“MSD”) samples.

Accuracy is a measure of the difference of a set of analytical results to the accepted or expected values. Accuracy was assessed by using the MS/MSD and surrogate spike recovery data. Recovery values were reported within the QC limits for each analytical parameter group.

Precision is a measure of the mutual agreement between measurements of the same parameter.

The sample results for the Vails Gate Project are considered “usable”.

Completeness, Representativeness, and Comparability of Data

Completeness is the measure of the amount of valid data obtained from a measurement system compared with the amount that was expected to be obtained under normal conditions. Review of the analytical data packages provided by Pace indicates that the requested parameters were analyzed for and reported by the laboratory for each sample submitted under proper chain-of-custody procedures. Based upon MEHC’s review of the laboratory data, a usable data level was achieved.

Representativeness of the data is obtained through the design of the sampling program and the adherence to established sample collection procedures, sample-handling SOPs, and analytical procedures. The sampling program outlined in the Work Plan was designed to provide for data representative of site conditions taking into consideration past disposal practices, existing data

from past studies, and the physical site setting. Each of the soil borings and monitoring wells were installed in accordance with established industry and regulatory protocols. The laboratory maintained all holding times for the specific analytical protocols.

Comparability of the data is derived from the evaluation of field duplicate samples and the adherence to established sampling and analytical procedures. A field duplicate is an independent sample collected as close as possible to the original aliquot from the same sampling point. All of the groundwater samples were analyzed utilizing standardized USEPA methodologies performed in accordance with the latest version of the NYSDEC ASP protocols.

Quality Control Checks

Holding/Storage Blanks

Holding blanks are samples of reagent water prepared by the laboratory and carried through the field sampling and sample handling and shipping process. Holding blanks are analyzed as separate samples to evaluate the level of contamination associated with the collection, handling, and/or shipping of the VOC sample aliquots.

For this investigation, a holding blank was not submitted with samples collected on February 10, 2015.

Trip Blanks

A trip blank is provided with each shipping container of samples to be analyzed for volatile organic compounds (VOCs). Analysis of trip blanks determines whether a sample bottle was contaminated during shipment from the manufacturer, while in bottle storage, in shipment to the laboratory, or during analysis at a laboratory. Trip blanks consist of an aliquot of distilled water sealed in a sample bottle, prepared by the analytical laboratory prior to shipping the sample bottles. A Trip blank was included with the shipment of aqueous samples for VOC analysis.

For this investigation, a trip blank was submitted with the VOC aliquot of the groundwater samples collected on February 10, 2015. No VOC compounds were detected in the trip blank analyzed during this investigation.

Field Blanks

Given that dedicated sampling equipment was utilized for the collection of each groundwater sample, field blanks were not collected or analyzed during this sampling event.

Method Blanks

A method blank is a sample of reagent water, which is carried through the analytical procedure alongside the project samples to determine the level of laboratory background and reagent contamination.

For this investigation, a method blank was submitted with the VOC aliquot of the groundwater samples collected on February 10, 2015. No VOC compounds were detected in the method blank analyzed during this investigation.

Matrix Spike/Matrix Spike Duplicate Samples

For the Vails Gate project, one (1) MS/MSD was collected and analyzed. The following sample results are mostly acceptable but positive results may be considered estimated due to the MS/MSD data being outside acceptable limits:

- MW-5A/AR for vinyl chloride
- MW-14 for vinyl chloride

These results are detailed in the Data Validation Compliance Chart.

Surrogate Analyses

Surrogates are compounds added directly to every standard, blank, MS/MSD, and sample at a known concentration, prior to extraction or analysis; and used to evaluate the analytical efficiency by measuring percent recovery of those compounds upon analysis. The laboratory reported surrogate recoveries were within established QC limits for the surrogates in each analyzed sample.

The sample results for the Vails Gate Project are considered “usable”.

Data Validation Compliance Chart
Vails Gate
February 10, 2015 Sampling Event

Sample ID	15020213			
Matrix	Water			
Analysis	TCL 8260	Metals (Dissolved Iron Only)	Miscellaneous Field Parameters	Wet Chemistry:
Holding Times	Samples were analyzed within USEPA holding times.	Samples were analyzed within USEPA holding times	Samples were analyzed in the field.	Samples were analyzed within USEPA holding times
Calibration	Trichlorofluoromethane, vinyl chloride, hexachlorobutadiene, and bromoform were recovered above established quality control limits in the Continuing Calibration Verification sample. Analytical bias is not indicated for these analytes as neither was detected in the samples. All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Method Blanks	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Matrix Spike/Matrix Spike Duplicate	2,2-Dichloropropane, carbon tetrachloride, chloroethane, dichlorodifluoromethane, trichlorofluoromethane, and vinyl chloride were recovered above established quality control limits in the Matrix Spike sample. All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Surrogates	All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Internal Standards	All data quality objectives were satisfied.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Reference Sample	All laboratory internal quality control samples were within acceptable ranges.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.	All quality assurance parameters were met for these analyses.
Data Usability	Data is acceptable.	Data is acceptable.	Data is acceptable.	Data is acceptable.