



Document Submittal Form

Instructions: This form should be completed and included with any document submitted to the Response and Remediation Program, Response Development Units 1 – 3, that is greater than 25 pages in length or that contains paper sizes larger than 11"x17". This includes Release Notifications and documents related to Hazardous Site Inventory and Voluntary Remediation Program sites. Contact Brownfield Unit staff for Brownfield submittal guidelines. Your cooperation helps to ensure that documents are filed correctly, completely, and efficiently.

Name of Document: March 2017 VRP Progress Report

Date of Document: March 15, 2017

Site Name: Cessna Aircraft Company GA1 Facility

Site ID Number: NA

Document Submittal Checklist. Please certify that the submittal includes the following by checking each box as appropriate. Items 1 – 3 should be checked / included / certified for each submittal:

- ☒ 1. One paper copy of the document (double-sided is preferred)
- ☒ 2. Two compact discs (CDs), each containing an electronic copy of the document as a single, searchable, Portable Document Format (PDF) file. Only one CD is needed for Release Notifications. CDs should be labeled at a minimum with the following: 1) Name of Document, 2) Date of Document, 3) Site Name, and 4) Site Number. Any scanned images should have a resolution of at least 300 dpi and should be in color if applicable.
- ☒ 3. The electronic copies are complete, virus free, and identical to the paper copy except as described in Item 4 below.
- ☐ 4. (Optional) To reduce the size of the paper copy, certain voluminous information has been omitted from the paper copy and is included only with the electronic copies:
 - ☐ laboratory data sheets
 - ☐ manifests
 - ☐ other: NA

I certify that the information I am submitting is, to the best of my knowledge and belief, true, accurate, and complete.

Signature: Andrew Romanek

Name (printed): Andrew Romanek

Date: 3/15/2017

Organization: CDM Smith Inc.

Phone: (423) 771-4495

Email: romanekap@cdmsmith.com

Receipt Date
(for EPD use only)



651 East 4th Street, Suite 100
Chattanooga, Tennessee 37403
tel: 423.771.4495

March 15, 2017

Mr. Jason Metzger
Program Manager
Response and Remediation Program
Georgia Environmental Protection Division Land Protection Branch
2 Martin Luther King, Jr. Drive SE
Suite 1054, East Tower
Atlanta, Georgia 30334

Subject: March 2017 Semi-Annual Voluntary Remediation Program Progress Report
Cessna Aircraft Company – Tax Parcel 112 003 002
Columbus, Muscogee County, Georgia

Dear Mr. Metzger:

This Progress Report documents the activities completed for the Cessna Aircraft Company facility in Columbus, Georgia from September 2016 through February 2017. This reporting schedule follows that prescribed by the Georgia Environmental Protection Division (EPD) in a letter dated September 27, 2016. This Progress Report includes the following:

- Work Performed This Period;
- Work Anticipated for the Next Period;
- Schedule; and
- Professional Certification.

On behalf of Cessna Aircraft Company, CDM Smith is in the process of preparing a Voluntary Remediation Plan (Plan) and intends to submit the Plan within the next two months. The Plan will include:

- A summary of site investigation activities completed to date
- An updated Site Conceptual Model
- A Focused Feasibility Study to evaluate the best alternative for mitigating off-property volatile organic compound (VOC) migration
- A vapor intrusion and mitigation evaluation including Vapor Intrusion Screening Level Calculator results
- A soil remediation evaluation





Mr. Jason Metzger
March 15, 2017
Page 2

- Proposed Risk Reduction Standards
- A proposed corrective action
- An implementation schedule

Considering that the Plan is expected to be submitted soon and contain the information noted above, this information is not presented in this progress report. Note that site investigation activities and results were previously described in the Voluntary Investigation and Remediation Plan Report submitted to EPD on March 24, 2016 as part of Cessna's VIRP Application. Additional investigations have not been conducted since except as outlined below.

Work Performed This Period

The following activities were performed during the current reporting period:

- Semi-annual groundwater monitoring
- Soil vapor extraction (SVE) system design and installation
- Voluntary Remediation Plan development

These activities are described further below.

Semi-Annual Groundwater Monitoring

As noted in EPD's VIRP acceptance letter, semi-annual groundwater sampling is required to monitor groundwater conditions. The first semi-annual groundwater monitoring event was conducted on February 1, 2017. A February 2017 Groundwater Monitoring Summary report is provided as **Attachment A**.

SVE System Design and Installation

CDM Smith completed design for an SVE system within the current site building in August 2016. The system is designed to depressurize and remove soil gas from underneath the floor slab, thus limiting any vapor intrusion into the existing building currently being used for warehouse space. The design consisted of four SVE wells and three vapor monitoring points, as shown on **Figure 1**. **Figure 2** details the conveyance and exhaust pipes, and **Figure 3** details the SVE blower system.

Proposals were requested from three construction companies, and Kemron Environmental Services was selected to complete SVE system installation. Construction was completed in accordance with the design, and initial startup and testing was performed in January 2017. Full-scale operation began on February 1, 2017. Startup sampling was also performed on February 1st and results are presented in **Attachment B**.



Mr. Jason Metzger
March 15, 2017
Page 3

In mid to late February, the SVE system experienced periods of intermittent operation where the system would shut down for an unknown reason. Troubleshooting was performed, and the issue was related to amperage demand from the blower. The problem was corrected and the SVE system has operated continuously since February 22nd.

Voluntary Remediation Plan

As noted above, CDM Smith is currently drafting the Plan with submittal planned to EPD within the next two months.

Work Anticipated for the Next Period

The following activities are planned for the next reporting period (March 2017 through August 2017):

- The Plan will be finalized and submitted to EPD for review;
- The second semi-annual groundwater monitoring event of 2017 will occur in August; and
- Operation and maintenance will be performed for the new SVE system.

Schedule

A detailed corrective action implementation schedule will be presented in the Plan. Semi-annual groundwater monitoring and progress reports will continue to be prepared.

Professional Certification

Attachment C contains the professional certification and summary of incurred professional engineer and geologist hours for the period from September 1, 2016 through February 28, 2017.

If you have any questions regarding this Progress Report, please do not hesitate to contact me at (423) 771-4495.

Sincerely,

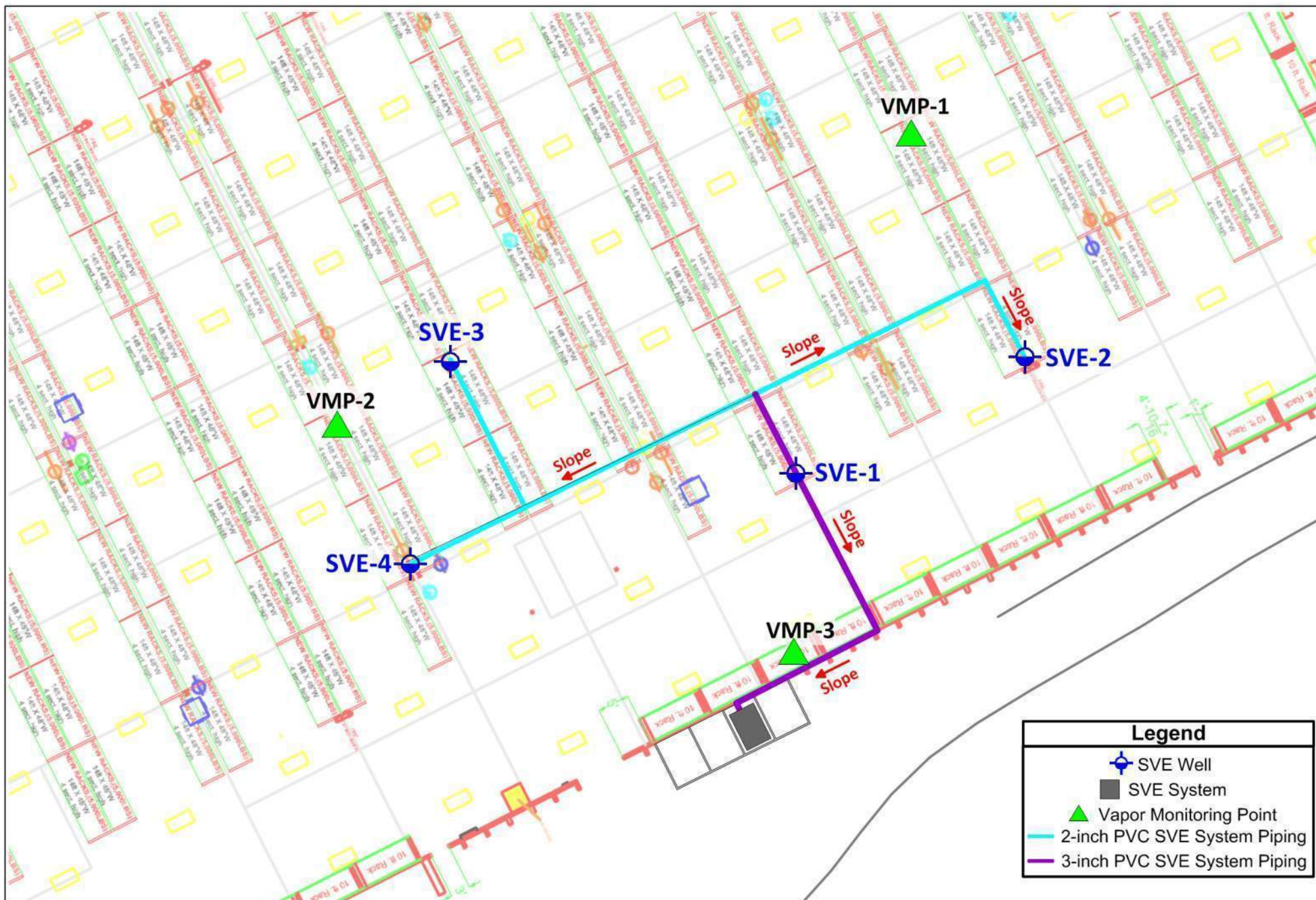
A handwritten signature in blue ink that reads "Andrew Romanek".

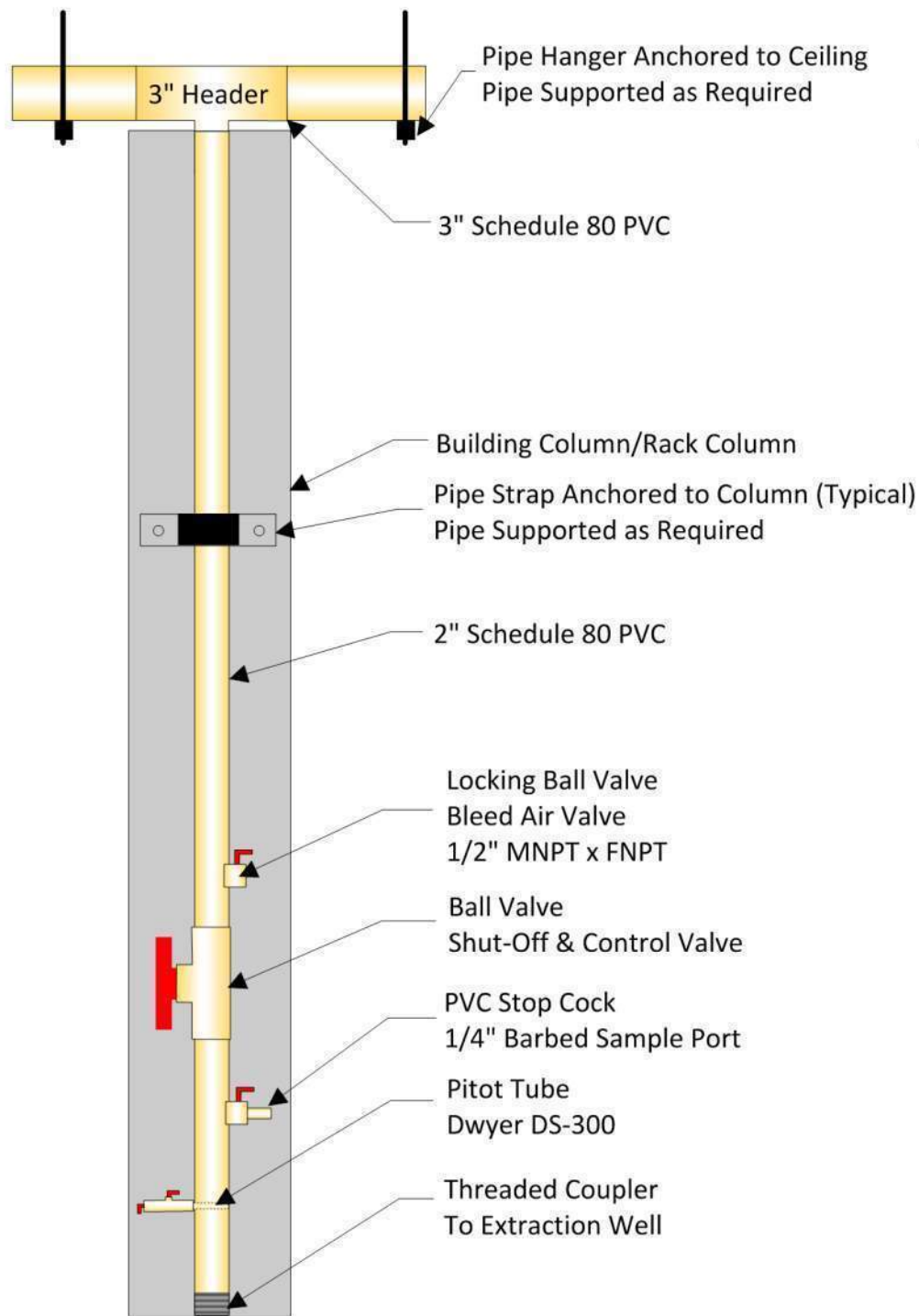
Andrew P. Romanek, P.E., BCEE, PMP
Associate
CDM Smith Inc.

Attachments

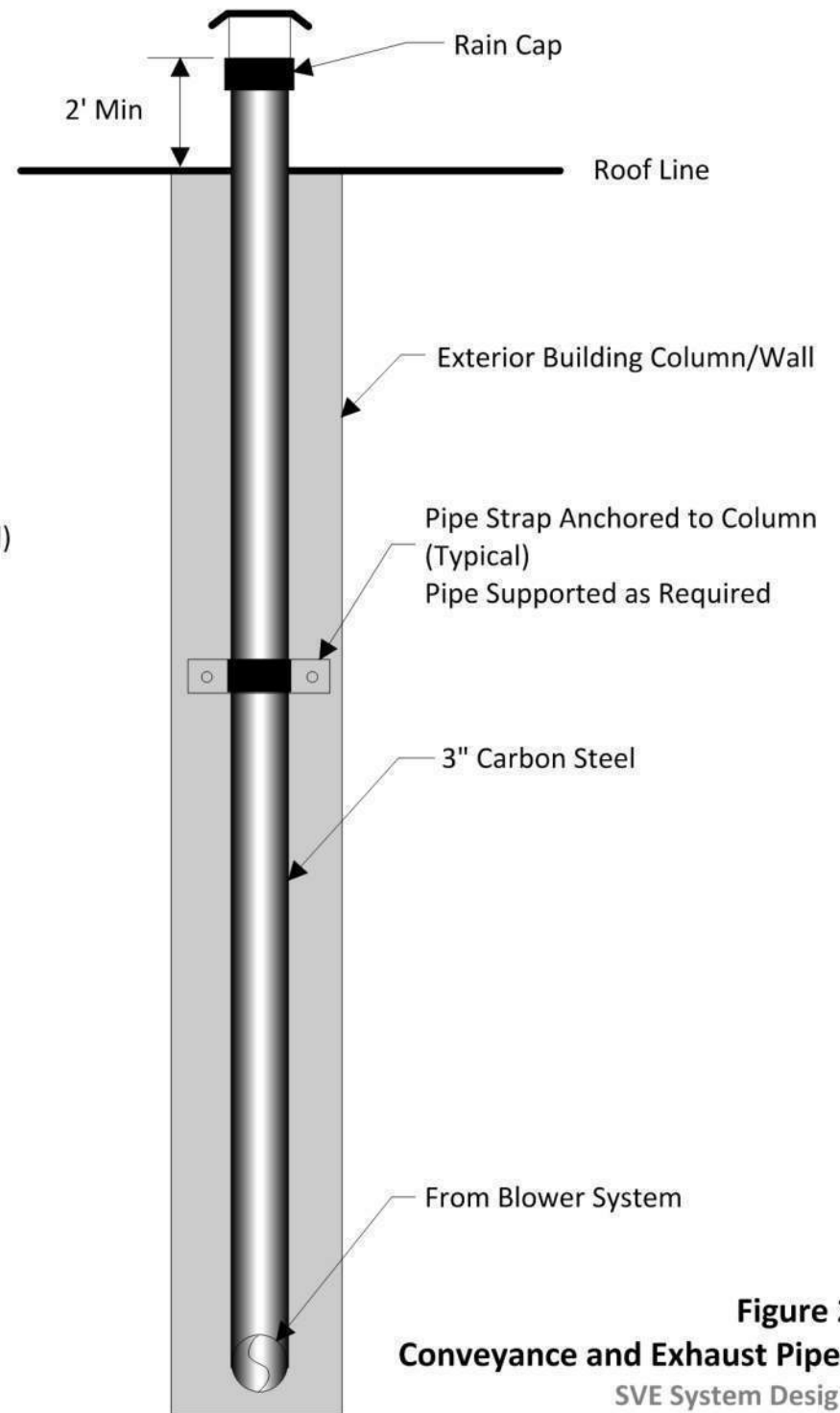
cc: Greg Simpson

Figures



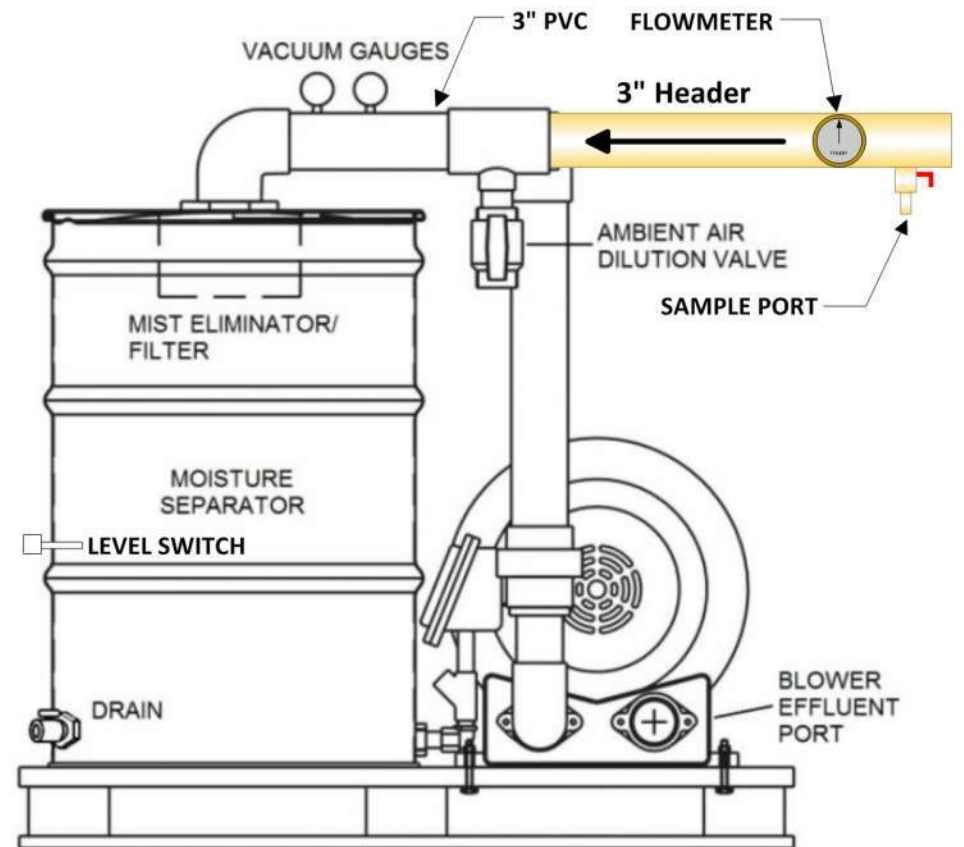
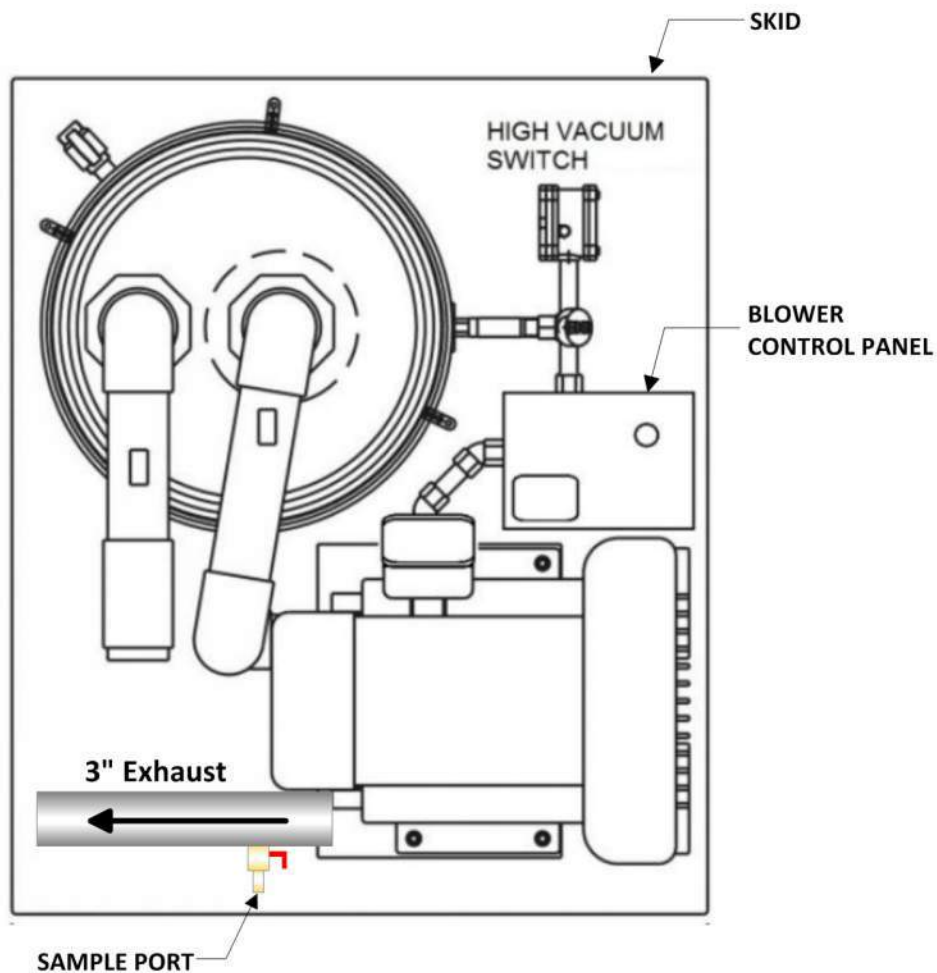


Wellhead Conveyance Pipe



Exhaust Pipe

Figure 2
Conveyance and Exhaust Pipes
 SVE System Design
 Cessna GA1 Facility
 Columbus, Muscogee County, Georgia



NOTES:

1. Drawing is based on package SVE System as provided by Geotech Environmental Equipment, Inc.
2. Blower shown on this drawing is a regenerative blower, which differs slightly in appearance from the specified rotary claw style.

Figure 3
SVE Blower System

SVE System Design

Cessna GA1 Facility

Columbus, Muscogee County, Georgia



Attachment A
1st 2017 Semi-Annual Groundwater Monitoring Report

1st 2017 Semi-Annual Groundwater Monitoring Report

Cessna Aircraft Company GA1 Facility Columbus, Muscogee County, Georgia

The Georgia Environmental Protection Division (EPD) accepted this site into Georgia's Voluntary Remediation Program (VRP) on September 27, 2016, and approved the Voluntary Investigation and Remediation Plan (VIRP) and VRP application dated March 24, 2016. EPD's acceptance and approval conditions currently require semi-annual groundwater monitoring and reporting. This report fulfills the first 2017 semi-annual reporting requirement.

Monitoring Program Description

The groundwater monitoring well network consists of eleven wells (**Figure A-1**). Water level measurements are recorded from all wells. Groundwater samples for laboratory analyses are collected from nine wells. Monitoring well GW-8 is not sampled because of its shallow depth and MW-1A is not sampled because it is upgradient and historically below the reporting level. The groundwater samples are analyzed for volatile organic compounds. CDM Smith has identified three zones of hydrogeologic interest at the site, as summarized below.

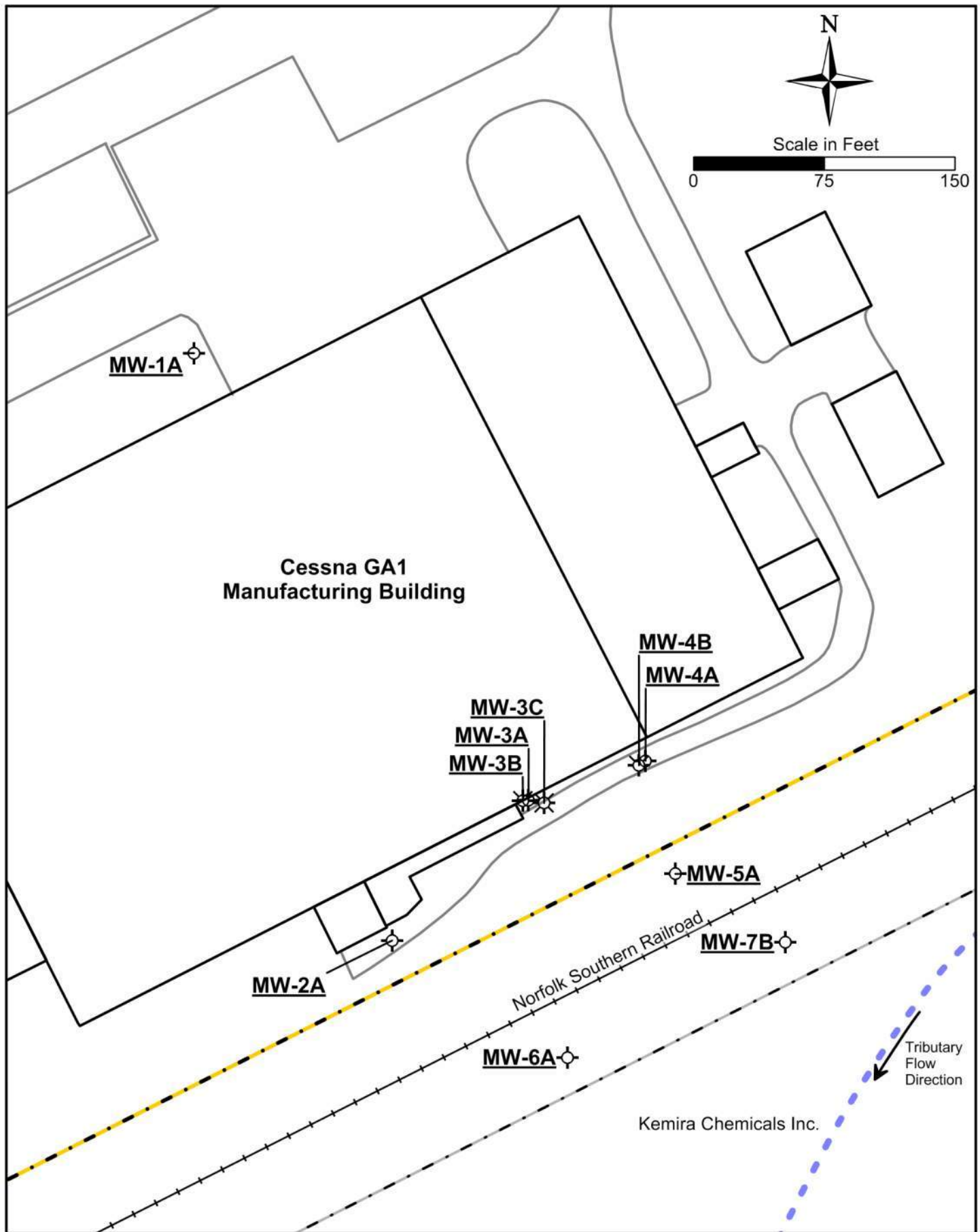
- Unit A – Unconsolidated coastal plain sediments and recent alluvium. The upper 20-25 feet is interbedded sand, silty sand, and silty clay. The lower portion of Unit A is permeable sand and permeable sand and gravel to a depth of approximately 30-35 feet below land surface (bls).
- Unit B – Piedmont saprolite. Unit B is below Unit A at depths ranging from approximately 30-35 feet bls and ranges in thickness from less than 1 foot up to 15 feet. Unit B is primarily silt.
- Unit C – Piedmont biotite gneiss bedrock. The bedrock depth ranges from approximately 30 feet to 45 feet bls. One boring, MW-3C, has been completed into bedrock and the rock was dense biotite gneiss with few fractures.

Results

Sampling for this event was completed on February 1, 2017. The water level records are summarized in **Table A-1** and the groundwater analytical results are summarized in **Table A-2**. The well purge records are in **Attachment A-1** and the full laboratory reports are in **Attachment A-2**.

Conclusions

Figure A-2 includes a potentiometric surface map prepared for combined Units A and B and shows the current trichloroethene (TCE) concentrations with the estimated extent of TCE exceeding the risk reduction standards reported in 2016 VIRP. The groundwater flow direction is southeast and consistent with previous events. The TCE extent in groundwater is also consistent with the 2016 mapping. However, TCE was detected for the first time in the upper bedrock well, MW-3C, at 12 ug/L. CDM Smith assumes that this well was equilibrated with formation groundwater during the previous sampling.



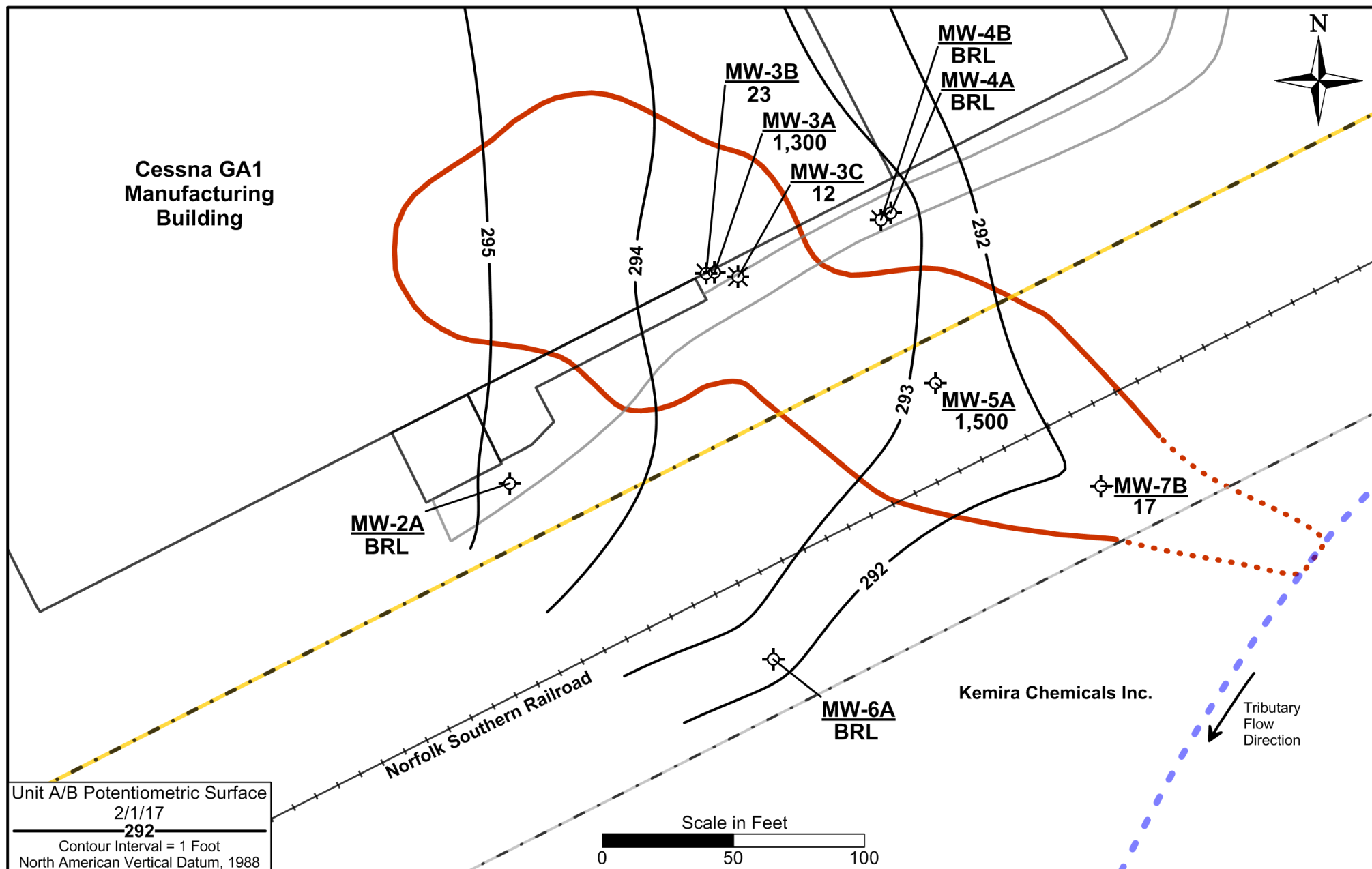
Monitoring Wells

- ⊕ Unit A (Coastal Plain/Recent Alluvium)
- ⊗ Unit B (Piedmont Saprolite)
- ⊙ Unit C (Upper Piedmont Bedrock)

Note: GW-8 monitored for water level only.

**Figure A-1
Groundwater
Monitoring Network**

Cessna GA1 Facility
Columbus, Muscogee County, Georgia



Well Construction and Water Levels

Well Code	Unit	Elevation TOC Feet	Screen Depth		Water Level TOC (8/7/14)		Water Level TOC (1/19/16)		Water Level TOC (2/1/17)	
			From	To	Depth	Elevation	Depth	Elevation	Depth	Elevation
MW-1A	A	311.09	17.5	27.5	15.15	295.94	14.73	296.36	15.30	295.79
MW-2A	A	311.89	23	33	18.17	293.72	16.71	295.18	17.37	294.52
MW-3A	A	312.09	25	30	19.41	292.68	18.12	293.97	18.72	293.37
MW-3B	B	312.32	36	41	19.43	292.89	18.14	294.18	18.69	293.63
MW-3C	C	312.32	77.5	87.5	--	--	82.5 ⁽²⁾	229.82 ⁽²⁾	43.10	269.22
MW-4A	A	313.17	25	30	20.51	292.66	19.28	293.89	19.72	293.45
MW-4B	B	313.11	42	47	21.14	291.97	18.95	294.16	19.81	293.30
MW-5A	A	299.59	20	30	--	--	6.34	293.25	6.79	292.80
MW-6A	A	298.34	11.5	21.5	--	--	5.42	292.92	5.80	292.54
MW-7B ⁽¹⁾	B	297.88	20	30	--	--	15.40 ⁽²⁾	282.48 ⁽²⁾	6.03	291.85
GW-8	A	314.34	8	18	20.26	294.08	17.92	296.42	18.48	295.86

Well Code	Unit	Elevation TOC Feet	Screen Depth		Water Level TOC		Water Level TOC		Water Level TOC	
			From	To	Depth	Elevation	Depth	Elevation	Depth	Elevation
MW-1A	A	311.09	17.5	27.5						
MW-2A	A	311.89	23	33						
MW-3A	A	312.09	25	30						
MW-3B	B	312.32	36	41						
MW-3C	C	312.32	77.5	87.5						
MW-4A	A	313.17	25	30						
MW-4B	B	313.11	42	47						
MW-5A	A	299.59	20	30						
MW-6A	A	298.34	11.5	21.5						
MW-7B ⁽¹⁾	B	297.88	20	30						
GW-8	A	314.34	8	18						

Well Code	Unit	Elevation TOC Feet	Screen Depth		Water Level TOC		Water Level TOC		Water Level TOC	
			From	To	Depth	Elevation	Depth	Elevation	Depth	Elevation
MW-1A	A	311.09	17.5	27.5						
MW-2A	A	311.89	23	33						
MW-3A	A	312.09	25	30						
MW-3B	B	312.32	36	41						
MW-3C	C	312.32	77.5	87.5						
MW-4A	A	313.17	25	30						
MW-4B	B	313.11	42	47						
MW-5A	A	299.59	20	30						
MW-6A	A	298.34	11.5	21.5						
MW-7B ⁽¹⁾	B	297.88	20	30						
GW-8	A	314.34	8	18						

All measurements are in feet

A - Unconsolidated Coastal Plain sediments and recent alluvium

B - Piedmont saprolite

C - Piedmont upper bedrock

1 - Previously designated as MW-7A

Elevation is NGVD 1929

All wells are 2-inch diameter

TOC - Top of casing

-- No measurement

2 - Suspected to not be equilibrated

Table A-1

Well Construction and Water Levels

Cessna GA1 Facility

Columbus, Muscogee County, Georgia

Compound		1,1-DCA	1,1-DCE	MEK	CD	cis-1,2-DCE	TCE
On-Site RRS		4,000	520	12,000	4,000	200	5.2
MW-2A	8/4/2014	BRL	BRL	BRL	BRL	BRL	BRL
	Duplicate	BRL	BRL	BRL	BRL	BRL	BRL
	1/19/2016	BRL	BRL	BRL	BRL	BRL	BRL
	2/1/2017	BRL	BRL	BRL	BRL	BRL	BRL
	Duplicate	BRL	BRL	BRL	BRL	BRL	BRL
MW-3A	8/4/2014	BRL	BRL	BRL	BRL	BRL	160
	1/20/2016	8.6	BRL	BRL	BRL	12	1,000
	2/1/2017	6.6	BRL	BRL	BRL	16	1,300
MW-3B	8/4/2014	BRL	BRL	BRL	BRL	BRL	71
	1/20/2016	BRL	BRL	BRL	BRL	BRL	11
	2/1/2017	BRL	BRL	BRL	BRL	BRL	23
MW-3C	1/20/2016	BRL	BRL	BRL	BRL	BRL	BRL
	2/1/2017	BRL	BRL	BRL	18	BRL	12
MW-4A	8/4/2014	BRL	BRL	BRL	BRL	BRL	BRL
	1/20/2016	BRL	BRL	BRL	BRL	BRL	BRL
	2/1/2017	BRL	BRL	BRL	BRL	BRL	BRL
MW-4B	8/4/2014	BRL	BRL	BRL	6.8	BRL	BRL
	1/20/2016	BRL	BRL	BRL	BRL	BRL	BRL
	2/1/2017	BRL	BRL	BRL	BRL	BRL	BRL
MW-5A	1/19/2016	10	6.9	BRL	BRL	30	1,900
	2/1/2017	6.0	5.7	BRL	BRL	18	1,500

Compound		1,1-DCA	1,1-DCE	MEK	CD	cis-1,2-DCE	TCE
Off-Site RRS		4,000	100	2,300	4,000	70	5
MW-6A	1/19/2016	BRL	BRL	BRL	BRL	BRL	BRL
	2/1/2017	BRL	BRL	BRL	BRL	BRL	BRL
MW-7B ⁽¹⁾	1/19/2016	BRL	BRL	190	BRL	49	100
	Duplicate	BRL	BRL	110	BRL	34	120
	2/1/2017	BRL	BRL	BRL	BRL	8.0	17

1 - Previously designated as MW-7A

RRS - Risk Reduction Standard

DCA - Dichloroethane

DCE - Dichloroethene

MEK - 2-Butanone

CD - Carbon Disulfide

Shaded values exceed the RRS.

Concentrations are µg/L

BRL - Below reporting level

TCE - Trichloroethene

**Table A-2: Groundwater Monitoring
Analytical Results**

Cessna GA1 Facility

Columbus, Muscogee County, Georgia

Attachment A-1
Well Purge Records

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-2A		DATE: 2/1/17	

PURGING DATA

[illegible]

SAMPLING DATA

[illegible]

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).

2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in bold).

pH: ± 0.1 units; **Specific Conductance:** $\pm 5\%$; **Turbidity:** ≤ 10 NTUs or until stable; **Dissolved Oxygen:** ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-3A		SAMPLE ID: MW-3A	
		DATE: 2-1-17	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:		SAMPLER(S) SIGNATURE(S):		SAMPLING INITIATED AT:		SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet bgl):		TUBING MATERIAL CODE:		FIELD-FILTERED: Y Filtration Equipment Type:		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y TUBING Y N (replaced)		DUPLICATE: Y N					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD
	2	CG	40mL	HCl	120		VOC by B260
							APP
							1.00
REMARK/NOTES:							
Hach Field Data: Final Ferrous Iron, _____ mg/L Final Sulfate, _____ mg/L Final CD ₂ , _____ mg/L Final MND ₄ , _____ mg/L Final Total Iron, _____ mg/L Final Nitrate, _____ mg/L Final Alkalinity, _____ mg/L Dilution Ratio: _____ Field Instruments: _____ SS Monsoon Pump, HACH Turbidimeter, YSI 556							
MATERIAL CDEES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify) _____							
SAMPLING EQUIPMENT CDEES: APP = After (Through) Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); D = Other (Specify) _____							
NOTES: 1. Low Flow Rate (LFR) was used for all samples.							

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).
2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in **bold**).
pH: ± 0.1 units; **Specific Conductance**: $\pm 5\%$; **Turbidity**: ≤ 10 NTUs or until stable; **Dissolved Oxygen**: ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-3B	SAMPLE ID: MW-3B		DATE: 2/1/17

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Nick Piller</i> / CDM Smith				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>			SAMPLING INITIATED AT: <i>1336</i>		SAMPLING ENDED AT:	
PUMP OR TUBING DEPTH IN WELL (feet bgl): <i>35</i>				TUBING MATERIAL CODE: <i>PE</i>			FIELD-FILTERED: Y <i>(N)</i> Filtration Equipment Type: <i>O</i>		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP <i>(N)</i> TUBING Y <i>(N)</i> (replaced)							DUPLICATE: Y <i>(O)</i>			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
REMARK/NOTES:										
Hach Field Data: Final Ferrous Iron, mg/L Final Sulfate, mg/L Final CO ₂ , mg/L Final MnO ₄ , mg/L Final Total Iron, mg/L Final Nitrate, mg/L Final Alkalinity, mg/L Dilution Ratio:										
Field Instruments:										
SS Monsoon Pump, HACH Turbidimeter, YSI 556										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).

2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in bold).

pH: ± 0.1 units; Specific Conductance: $\pm 5\%$; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-3C	SAMPLE ID: MW-3C		DATE: 2/1/17

PURGING DATA

WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 1/4		WELL SCREEN INTERVAL DEPTH: 82.5 to 87.5 feet bgl		STATIC DEPTH TO WATER (feet TOC): 43.1		PURGE PUMP TYPE: PP			
TRADITIONAL PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)											
LDW FLOW PURGE: 1 SCREEN VOL. = WELL CAPACITY X SATURATED SCREEN LENGTH (only fill out if applicable)											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 85											
FINAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 85											
PURGING INITIATED AT: 1336											
PURGING ENDED AT: 1411											
TOTAL VOLUME PURGED (gallons): 1											
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet TOC)	pH (standard units)	TEMP. (°C)	SP. COND. (circle units) µmhos/cm or µS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP (mV)	COLOR/ ODOR (describe)
1348	0.50	0.50		43.1	5.21	23.31	81	101	4.51	131.1	cloudy
1402	0.50	1.00		43.1	5.18	23.26	78	81.4	4.01	135.6	cloudy
Pump will not pull anymore water!											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016 PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

[illegible]

NOTES: 1. Low Flow also referred to as "Tubing-In-Screened Interval" (tubing placed in the center of the well screen).
2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in **bold**).
pH: ± 0.1 units; **Specific Conductance:** $\pm 5\%$; **Turbidity:** ≤ 10 NTUs or until stable; **Dissolved Oxygen:** ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-4A	SAMPLE ID: MW-4A	DATE: 2.1.17	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 19.94 to 29.94 feet bgl	STATIC DEPTH TO WATER (feet TOC): 19.72	PURGE PUMP TYPE: PP
TRADITIONAL PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = (feet TOC - feet TOC) X gallons/foot = gallons				
LOW FLOW PURGE: 1 SCREEN VOL. = WELL CAPACITY X SATURATED SCREEN LENGTH = 0.16 gallons/foot X 10 feet = 1.6 gallons = 4.8 5				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 24.94	FINAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 24.94	PURGING INITIATED AT: 1156	PURGING ENDED AT: 1228	TOTAL VOLUME PURGED (gallons): 1228

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet TOC)	pH (standard units)	TEMP. (°C)	SP. COND. (circle units) μmhos/cm or μS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP (mV)	COLOR/ODOR (describe)
1202	1	1		19.80	5.94	19.1	0.130	62.9	0.35	-43.2	clear/none
1210	1	2		19.81	5.93	19.1	0.127	32.9	0.16	-62.5	"
1216	1	3		19.81	5.93	19.1	0.128	16.0	0.17	-69.7	"
1222	1	4		19.82	5.91	19.1	0.128	10.4	0.21	-74.6	"
1228	1	5		19.81	5.92	19.1	0.128	10.5	0.23	-72.6	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: J. A. Choi / CDM Smith		SAMPLER(S) SIGNATURE(S): [Signature]		SAMPLING INITIATED AT: 1228	SAMPLING ENDED AT: 1233
PUMP OR TUBING DEPTH IN WELL (feet bgl): 24.94		TUBING MATERIAL CODE: LDPE	FIELD-FILTERED: Y	FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y		TUBING Y N (replaced)	DUPLICATE: Y N		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	120		VOL 6.8260	APP	100

REMARK/NOTES:

Hach Field Data: Final Ferrous Iron, mg/L Final Sulfate, mg/L Final CO₂, mg/L Final MnO₄, mg/L
 Final Total Iron, mg/L Final Nitrate, mg/L Final Alkalinity, mg/L Dilution Ratio:

Field Instruments: SS Monsoon Pump, HACH Turbidimeter, YSI 556

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).
 2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in bold).
 pH: ± 0.1 units; Specific Conductance: ± 5%; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

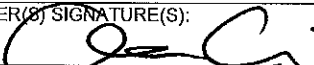
GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-4B		SAMPLE ID: MW-4B	
		DATE: 2-1-17	

PURGING DATA

WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 3/8		WELL SCREEN INTERVAL DEPTH: 35.81 to 45.81 feet bgl		STATIC DEPTH TO WATER (feet TOC): 19.81		PURGE PUMP TYPE PP			
TRADITIONAL PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet TOC - feet TOC) X gallons/foot = gallons											
LOW FLOW ¹ PURGE: 1 SCREEN VOL. = WELL CAPACITY X SATURATED SCREEN LENGTH (only fill out if applicable) = 0.16 gallons/foot x 10 feet = 1.6 x 3 gallons 4.8											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 40.81			FINAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 40.81			PURGING INITIATED AT: 1238		PURGING ENDED AT: 1257		TOTAL VOLUME PURGED (gallons): 82.5	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet TOC)	pH (standard units)	TEMP. (°C)	SP. COND. (circle units) µmhos/cm or µS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP (mV)	COLOR/ ODOR (describe)
1243	1	1		29.85	6.74	19.0	0.334	11.7	0.86	-48.5	clear
1251	1	2		31.68	6.89	19.0	0.341	9.30	0.154	-64.4	none
water level below pump capacity!											
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) & AFFILIATION: Clara Choi / CDM Smith				SAMPLER(S) & SIGNATURE(S): 				SAMPLING INITIATED AT: 1320		SAMPLING ENDED AT: 1325			
PUMP OR TUBING DEPTH IN WELL (feet bgl): 40.81				TUBING MATERIAL CODE: LDPE		FIELD-FILTERED: Y ☒ N ☐ Filtration Equipment Type: 0			FILTER SIZE: _____ µm				
FIELD DECONTAMINATION: PUMP Y ☒ N ☐ TUBING Y ☒ N ☐ (replaced)						DUPLICATE: Y ☒ N ☐							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE		# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)		FINAL pH					
		2	CG	40mL	HCl	120					APP		100
REMARK/NOTES: Hach Field Data: Final Ferrous Iron, _____ mg/L Final Sulfate, _____ mg/L Final CO ₂ , _____ mg/L Final MnO ₄ , _____ mg/L Final Total Iron, _____ mg/L Final Nitrate, _____ mg/L Final Alkalinity, _____ mg/L Dilution Ratio: _____ Field Instruments: _____ SS Monsoon Pump, HACH Turbidimeter, YSI 556													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).

2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in **bold**),

pH: ± 0.1 units; Specific Conductance: $\pm 5\%$; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna		SITE LOCATION: Columbus, GA	
WELL NO: MW-5A		SAMPLE ID: MW-5A	
		DATE: 2/1/17	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <i>Clara Choi</i> CDM Smith	SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>	SAMPLING INITIATED AT: 0907	SAMPLING ENDED AT: 0911
PUMP OR TUBING DEPTH IN WELL (#feet bgl): 25-29	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ μm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	
SAMPLE CONTAINER SPECIFICATION			
# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED
3	CG	40L	HCL
REMARKS/NOTES:			
Hach Field Data: Final Ferrous Iron, mg/L Final Sulfate, mg/L Final CO₂, mg/L Final MnO₄, mg/L			
Final Total Iron, mg/L Final Nitrate, mg/L Final Alkalinity, mg/L Oilution Ratio:			
Field Instruments:			
SS Monsoon Pump, HACH Turbidimeter, YSI 556			
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LOPE = Low Density Polyethylene; PP = Polypropylene;			
S = Silicone; T = Teflon; O = Other (Specify)			
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; RFP = Reverse Flow Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump;			
SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)			

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).

1. Low flow also referred to as tubing in screened interval (tubing placed in the center of the well screen);
2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in **bold**).

pH: ± 0.1 units; Specific Conductance: $\pm 5\%$; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna	SITE LOCATION: Columbus, GA	DATE: 2/1/17
WELL NO: MW-6A	SAMPLE ID: MW-6A	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 11.4 to 21.4 feet bgl	STATIC DEPTH TO WATER (feet TOC): 5.80	PURGE PUMP TYPE: PP
TRAITIONAL PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (feet TOC - feet TOC) X gallons/foot = gallons				
LOW FLOW PURGE: 1 SCREEN VOL. = WELL CAPACITY X SATURATED SCREEN LENGTH (only fill out if applicable) = 0.16 gallons/foot X 10 feet = 1.6 X 3 gallons 4.8				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet bgl):	FINAL PUMP OR TUBING DEPTH IN WELL (feet bgl):	PURGING INITIATED AT: 1010	PURGING ENDED AT: 1043	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet TOC)	pH (standard units)	TEMP. (°C)	SP. CONO. (circle units) µmhos/cm or µS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP (mV)	COLOR/ ODOR (describe)
1017	1	1		6.10	5.41	16.7	0.053	995	1.20	-32.1	yellow/mg
1024	1	2		6.13	5.42	16.5	0.053	161	1.08	-35.2	clear
1031	1	3	6.14	6.14	5.42	16.5	0.053	75.3	1.05	-38.6	none
1037	1	4		6.14	5.42	16.5	0.053	36.3	1.01	-42.0	"
1043	1	5		6.14	5.41	16.4	0.053	23.3	1.04	-42.9	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT COOES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dana Choi / CDM Smith				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 1043		SAMPLING ENDED AT: 1047	
PUMP OR TUBING DEPTH IN WELL (feet bgl):				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y ☒ N ☐		FILTER SIZE: µm			
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ N (replaced)				DUPLICATE: Y ☒ N ☐							

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	CG	40mL	HCl	120		VOC by 8260	APP	100

REMARK/NOTES:

Hach Field Data: Final Ferrous Iron, mg/L Final Sulfate, mg/L Final CO₂, mg/L Final MnO₄, mg/L
 Final Total Iron, mg/L Final Nitrate, mg/L Final Alkalinity, mg/L Dilution Ratio:

Field Instruments: SS Monsoon Pump, HACH Turbidimeter, YSI 556

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LOPE = Low Density Polyethylene; PP = Polypropylene;
 S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT COOES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;
 RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).
 2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in bold).
 pH: ± 0.1 units; Specific Conductance: ± 5%; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

GROUNDWATER SAMPLING LOG

SITE NAME: Cessna	SITE LOCATION: Columbus, GA
WELL NO: MW-7A	SAMPLE ID: MW-7A
DATE: 2/1/17	

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8	WELL SCREEN INTERVAL DEPTH: 20.06 to 30.06 feet bgl	STATIC DEPTH TO WATER (feet TOC): 6.03	PURGE PUMP TYPE: PP
TRADITIONAL PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
= (feet TOC - feet TOC) X gallons/foot = gallons				
LOW FLOW ¹ PURGE: 1 SCREEN VOL. = WELL CAPACITY X SATURATED SCREEN LENGTH (only fill out if applicable)				
= 6.16 gallons/foot X 10 feet 1.6 X 3 gallons 4.8				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 25.06	FINAL PUMP OR TUBING DEPTH IN WELL (feet bgl): 25.06	PURGING INITIATED AT: 0934	PURGING ENDED AT: 0950	TOTAL VOLUME PURGED (gallons): 93

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet TOC)	pH (standard units)	TEMP. (°C)	SP. COND. (circle units) µmhos/cm or µS/cm	TURBIDITY (NTUs)	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP (mV)	COLOR/ ODOR (describe)
0938	1			13.65	6.54	17.3	0.120	17.9	4.58	-17.6	clear
0942	1			17.90	6.61	17.0	0.120	17.2	5.09	-24.3	none
0947	1			21.91	6.66	17.0	0.113	22.5	6.24	-28.3	"
dry!											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Clara Cho / CDM Smith				SAMPLER(S) SIGNATURE(S): <i>Clara Cho</i>				SAMPLING INITIATED AT: 1050		SAMPLING ENDED AT: 1054	
PUMP OR TUBING DEPTH IN WELL (feet bgl): 25.06				TUBING MATERIAL CODE: PF				FIELD-FILTERED: Y ☒ N ☐		FILTER SIZE: _____ µm	
FIELD DECONTAMINATION: PUMP Y ☒ N ☐ TUBING Y ☒ N ☐ (replaced)				DUPLICATE: Y ☐ N ☒							

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	CG	40mL	HCl	120		VOL by 8260	APP	100

REMARK/NOTES:

Hach Field Data: Final Ferrous Iron, mg/L Final Sulfate, mg/L Final CO₂, mg/L Final MnO₄, mg/L
Final Total Iron, mg/L Final Nitrate, mg/L Final Alkalinity, mg/L Dilution Ratio:

Field Instruments: SS Monsoon Pump, HACH Turbidimeter, YSI 556

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene;
S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. Low Flow also referred to as "Tubing-in-Screened Interval" (tubing placed in the center of the well screen).

2. Stabilization criteria for range of variation of at least three consecutive readings (required parameters in bold).

pH: ± 0.1 units; Specific Conductance: ± 5%; Turbidity: ≤ 10 NTUs or until stable; Dissolved Oxygen: ± 0.2 mg/L or 10% saturation (whichever is greater)

Attachment A-2
Laboratory Reports



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 07, 2017

Andrew Romanek
CDM Smith Inc.
3200 Windy Hill Road
Atlanta GA 30339

TEL: (404) 720-1380
FAX: (404) 467-4130

RE: Cessna

Dear Andrew Romanek:

Order No: 1702103

Analytical Environmental Services, Inc. received 11 samples on 2/1/2017 5:10:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/16-06/30/17.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/16-06/30/17.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos, Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1702103

Date: 2/1/17 Page 1 of 1

COMPANY: CDM Smith		ADDRESS: 3200 Windy Hill Rd Suite 210 West Atlanta, GA 30339		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers			
PHONE: 404-720-1400		FAX:		VERS										REMARKS					
SAMPLED BY: Nick Fuller / Karen Choi		SIGNATURE: <i>[Signature]</i>																	
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	PRESERVATION (See codes)										REMARKS	
		DATE	TIME																
1	DUP-1	2/1/17	0800	X		GW	X											2	
2	MW-SA	2/1/17	0907	X		GW	X											2	
3	MW-6A	2/1/17	1013	X		GW	X											2	
4	MW-7A	2/1/17	1050	X		GW	X											2	
5	MW-4A	2/1/17	1228	X		GW	X											2	
6	MW-2A	2/1/17	1241	X		GW	X											2	
7	MW-4B	2/1/17	1320	X		GW	X											2	
8	MW-3B	2/1/17	1336	X		GW	X											2	
9	MW-3C	2/1/17	1411	X		GW	X											2	
10	MW-3A	2/1/17	1445	X		GW	X											2	
11	TRIP Blank			X		W	X											2	
12																			
13																			
14																			
RELINQUISHED BY		DATE/TIME		RECEIVED BY		DATE/TIME		PROJECT INFORMATION										RECEIPT	
1: <i>[Signature]</i>		2-1-17 1710		1: <i>[Signature]</i>		2/1/17 5:10pm		PROJECT NAME: Cessna										Total # of Containers 22	
2:				2:				PROJECT #:										☒ Turnaround Time Request ☐ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other	
3:				3:				SITE ADDRESS: Columbus GA											
								SEND REPORT TO: Andrew Romanek											
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				INVOICE TO:										STATE PROGRAM (if any):	
				OUT / / VIA:				(IF DIFFERENT FROM ABOVE)										E-mail? Y / N; Fax? Y / N	
				IN / / VIA:				RomanekA@CDMSmith.com										DATA PACKAGE: I II III IV	
				CLIENT FedEx UPS MAIL COURIER				QUOTE #:										PO#:	
				GREYHOUND OTHER															

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.

SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-001

Client Sample ID: DUP-1
Collection Date: 2/1/2017 8:00:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 12:34	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 12:34	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 12:34	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-001

Client Sample ID: DUP-1
 Collection Date: 2/1/2017 8:00:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 12:34	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 12:34	BN
Surr: 4-Bromofluorobenzene	92	66.1-129		%REC	237525	1	02/03/2017 12:34	BN
Surr: Dibromofluoromethane	97.7	83.6-123		%REC	237525	1	02/03/2017 12:34	BN
Surr: Toluene-d8	97.6	81.8-118		%REC	237525	1	02/03/2017 12:34	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-002

Client Sample ID: MW-5A
 Collection Date: 2/1/2017 9:07:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,1-Dichloroethane	6.0	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,1-Dichloroethene	5.7	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 16:26	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 16:26	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
cis-1,2-Dichloroethene	18	5.0		ug/L	237525	1	02/03/2017 16:26	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 16:26	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-002

Client Sample ID: MW-5A
 Collection Date: 2/1/2017 9:07:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Trichloroethene	1500	100		ug/L	237525	20	02/03/2017 16:53	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 16:26	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 16:26	BN
Surr: 4-Bromofluorobenzene	90.9	66.1-129		%REC	237525	1	02/03/2017 16:26	BN
Surr: 4-Bromofluorobenzene	93.5	66.1-129		%REC	237525	20	02/03/2017 16:53	BN
Surr: Dibromofluoromethane	99	83.6-123		%REC	237525	1	02/03/2017 16:26	BN
Surr: Dibromofluoromethane	96.5	83.6-123		%REC	237525	20	02/03/2017 16:53	BN
Surr: Toluene-d8	100	81.8-118		%REC	237525	1	02/03/2017 16:26	BN
Surr: Toluene-d8	99.1	81.8-118		%REC	237525	20	02/03/2017 16:53	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-003

Client Sample ID: MW-6A
Collection Date: 2/1/2017 10:43:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 13:25	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 13:25	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 13:25	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	CDM Smith Inc.	Client Sample ID:	MW-6A
Project Name:	Cessna	Collection Date:	2/1/2017 10:43:00 AM
Lab ID:	1702103-003	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:25	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 13:25	BN
Surr: 4-Bromofluorobenzene	90.8	66.1-129		%REC	237525	1	02/03/2017 13:25	BN
Surr: Dibromofluoromethane	100	83.6-123		%REC	237525	1	02/03/2017 13:25	BN
Surr: Toluene-d8	99.1	81.8-118		%REC	237525	1	02/03/2017 13:25	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-004

Client Sample ID: MW-7A
Collection Date: 2/1/2017 10:50:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 15:59	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 15:59	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
cis-1,2-Dichloroethene	8.0	5.0		ug/L	237525	1	02/03/2017 15:59	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 15:59	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-004

Client Sample ID: MW-7A
Collection Date: 2/1/2017 10:50:00 AM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Trichloroethene	17	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:59	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 15:59	BN
Surr: 4-Bromofluorobenzene	90.5	66.1-129		%REC	237525	1	02/03/2017 15:59	BN
Surr: Dibromofluoromethane	97.7	83.6-123		%REC	237525	1	02/03/2017 15:59	BN
Surr: Toluene-d8	99.4	81.8-118		%REC	237525	1	02/03/2017 15:59	BN

Qualifiers: * Value exceeds maximum contaminant level
 BRL Below reporting limit
 H Holding times for preparation or analysis exceeded
 N Analyte not NELAC certified
 B Analyte detected in the associated method blank
 > Greater than Result value

E Estimated (value above quantitation range)
 S Spike Recovery outside limits due to matrix
 Narr See case narrative
 NC Not confirmed
 < Less than Result value
 J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-005

Client Sample ID: MW-4A
 Collection Date: 2/1/2017 12:28:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 13:51	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 13:51	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 13:51	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-005

Client Sample ID: MW-4A
 Collection Date: 2/1/2017 12:28:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 13:51	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 13:51	BN
Surr: 4-Bromofluorobenzene	90.1	66.1-129		%REC	237525	1	02/03/2017 13:51	BN
Surr: Dibromofluoromethane	96.6	83.6-123		%REC	237525	1	02/03/2017 13:51	BN
Surr: Toluene-d8	98.2	81.8-118		%REC	237525	1	02/03/2017 13:51	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-006

Client Sample ID: MW-2A
Collection Date: 2/1/2017 12:41:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 14:16	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 14:16	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 14:16	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	CDM Smith Inc.	Client Sample ID:	MW-2A
Project Name:	Cessna	Collection Date:	2/1/2017 12:41:00 PM
Lab ID:	1702103-006	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:16	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 14:16	BN
Surr: 4-Bromofluorobenzene	92.2	66.1-129		%REC	237525	1	02/03/2017 14:16	BN
Surr: Dibromofluoromethane	101	83.6-123		%REC	237525	1	02/03/2017 14:16	BN
Surr: Toluene-d8	101	81.8-118		%REC	237525	1	02/03/2017 14:16	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-007

Client Sample ID: MW-4B
Collection Date: 2/1/2017 1:20:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 14:42	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 14:42	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 14:42	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-007

Client Sample ID: MW-4B
 Collection Date: 2/1/2017 1:20:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 14:42	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 14:42	BN
Surr: 4-Bromofluorobenzene	92.1	66.1-129		%REC	237525	1	02/03/2017 14:42	BN
Surr: Dibromofluoromethane	98.7	83.6-123		%REC	237525	1	02/03/2017 14:42	BN
Surr: Toluene-d8	99.4	81.8-118		%REC	237525	1	02/03/2017 14:42	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-008

Client Sample ID: MW-3B
 Collection Date: 2/1/2017 1:36:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 15:08	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 15:08	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 15:08	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-008

Client Sample ID: MW-3B
 Collection Date: 2/1/2017 1:36:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Trichloroethene	23	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:08	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 15:08	BN
Surr: 4-Bromofluorobenzene	91.6	66.1-129		%REC	237525	1	02/03/2017 15:08	BN
Surr: Dibromofluoromethane	99.7	83.6-123		%REC	237525	1	02/03/2017 15:08	BN
Surr: Toluene-d8	100	81.8-118		%REC	237525	1	02/03/2017 15:08	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702103-009

Client Sample ID: MW-3C
Collection Date: 2/1/2017 2:11:00 PM
Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 15:33	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 15:33	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Carbon disulfide	18	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 15:33	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	CDM Smith Inc.	Client Sample ID:	MW-3C
Project Name:	Cessna	Collection Date:	2/1/2017 2:11:00 PM
Lab ID:	1702103-009	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Trichloroethene	12	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 15:33	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 15:33	BN
Surr: 4-Bromofluorobenzene	93.7	66.1-129		%REC	237525	1	02/03/2017 15:33	BN
Surr: Dibromofluoromethane	96.8	83.6-123		%REC	237525	1	02/03/2017 15:33	BN
Surr: Toluene-d8	100	81.8-118		%REC	237525	1	02/03/2017 15:33	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-010

Client Sample ID: MW-3A
 Collection Date: 2/1/2017 2:45:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,1-Dichloroethane	6.6	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 17:18	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 17:18	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
cis-1,2-Dichloroethene	16	5.0		ug/L	237525	1	02/03/2017 17:18	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 17:18	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 7-Feb-17

Client: CDM Smith Inc.
 Project Name: Cessna
 Lab ID: 1702103-010

Client Sample ID: MW-3A
 Collection Date: 2/1/2017 2:45:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Trichloroethene	1300	50		ug/L	237525	10	02/03/2017 17:47	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 17:18	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 17:18	BN
Surr: 4-Bromofluorobenzene	89.6	66.1-129		%REC	237525	10	02/03/2017 17:47	BN
Surr: 4-Bromofluorobenzene	92.3	66.1-129		%REC	237525	1	02/03/2017 17:18	BN
Surr: Dibromofluoromethane	98	83.6-123		%REC	237525	1	02/03/2017 17:18	BN
Surr: Dibromofluoromethane	98.2	83.6-123		%REC	237525	10	02/03/2017 17:47	BN
Surr: Toluene-d8	99.5	81.8-118		%REC	237525	1	02/03/2017 17:18	BN
Surr: Toluene-d8	99.9	81.8-118		%REC	237525	10	02/03/2017 17:47	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	CDM Smith Inc.	Client Sample ID:	TRIP BLANK
Project Name:	Cessna	Collection Date:	2/1/2017
Lab ID:	1702103-011	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,1,2-Trichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,1-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,1-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2-Dibromoethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2-Dichloroethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,2-Dichloropropane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,3-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
1,4-Dichlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
2-Butanone	BRL	50		ug/L	237525	1	02/03/2017 11:43	BN
2-Hexanone	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
4-Methyl-2-pentanone	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
Acetone	BRL	50		ug/L	237525	1	02/03/2017 11:43	BN
Benzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Bromodichloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Bromoform	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Bromomethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Carbon disulfide	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Carbon tetrachloride	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Chlorobenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Chloroethane	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
Chloroform	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Chloromethane	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
cis-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
cis-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Cyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Dibromochloromethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Dichlorodifluoromethane	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
Ethylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Freon-113	BRL	10		ug/L	237525	1	02/03/2017 11:43	BN
Isopropylbenzene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
m,p-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Methyl acetate	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Methyl tert-butyl ether	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Methylcyclohexane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Methylene chloride	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
o-Xylene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 7-Feb-17

Client:	CDM Smith Inc.	Client Sample ID:	TRIP BLANK
Project Name:	Cessna	Collection Date:	2/1/2017
Lab ID:	1702103-011	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Tetrachloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Toluene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
trans-1,2-Dichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
trans-1,3-Dichloropropene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Trichloroethene	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Trichlorofluoromethane	BRL	5.0		ug/L	237525	1	02/03/2017 11:43	BN
Vinyl chloride	BRL	2.0		ug/L	237525	1	02/03/2017 11:43	BN
Surr: 4-Bromofluorobenzene	92	66.1-129		%REC	237525	1	02/03/2017 11:43	BN
Surr: Dibromofluoromethane	99.1	83.6-123		%REC	237525	1	02/03/2017 11:43	BN
Surr: Toluene-d8	99	81.8-118		%REC	237525	1	02/03/2017 11:43	BN

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: MW-5A Lab ID: 1702103-002 Collection Date: 2/1/2017 9:07:00 AM Matrix: Groundwater							
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			
1,1-Dichloroethane	6.0		0.25	5.0	ug/L	237525	1
1,1-Dichloroethene	5.7		0.36	5.0	ug/L	237525	1
cis-1,2-Dichloroethene	18		0.27	5.0	ug/L	237525	1
Trichloroethene	1500		7.1	100	ug/L	237525	20
Client Sample ID: MW-7A Lab ID: 1702103-004 Collection Date: 2/1/2017 10:50:00 AM Matrix: Groundwater							
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			
cis-1,2-Dichloroethene	8.0		0.27	5.0	ug/L	237525	1
Trichloroethene	17		0.35	5.0	ug/L	237525	1
Client Sample ID: MW-3B Lab ID: 1702103-008 Collection Date: 2/1/2017 1:36:00 PM Matrix: Groundwater							
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			
Trichloroethene	23		0.35	5.0	ug/L	237525	1
Client Sample ID: MW-3C Lab ID: 1702103-009 Collection Date: 2/1/2017 2:11:00 PM Matrix: Groundwater							
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			
Carbon disulfide	18		0.46	5.0	ug/L	237525	1
Trichloroethene	12		0.35	5.0	ug/L	237525	1
Client Sample ID: MW-3A Lab ID: 1702103-010 Collection Date: 2/1/2017 2:45:00 PM Matrix: Groundwater							
TCL VOLATILE ORGANICS SW8260B				(SW5030B)			
1,1-Dichloroethane	6.6		0.25	5.0	ug/L	237525	1
cis-1,2-Dichloroethene	16		0.27	5.0	ug/L	237525	1
Trichloroethene	1300		3.5	50	ug/L	237525	10

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client CDM

Work Order Number 1702103

Checklist completed by *Arifa Indje* 2/1/17
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}\text{C}$)* Yes ☒ No ☐

Cooler #1 1-2' Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler#5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by ☐

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\Aes_server\\Sample Receipt\\My Documents\\COCs and pH Adjustment Sheet\\Sample_Cooler_Recipt_Checklist_Rev1.rtf

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702103

ANALYTICAL QC SUMMARY REPORT

BatchID: 237525

Sample ID: MB-237525	Client ID:					Units: ug/L	Prep Date: 02/03/2017	Run No: 335685			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 237525	Analysis Date: 02/03/2017	Seq No: 7330146			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702103

ANALYTICAL QC SUMMARY REPORT

BatchID: 237525

Sample ID: MB-237525	Client ID:					Units: ug/L	Prep Date: 02/03/2017		Run No: 335685		
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS	SW8260B				BatchID: 237525	Analysis Date: 02/03/2017		Seq No: 7330146		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	46.06	0	50.00		92.1	66.1	129				
Surr: Dibromofluoromethane	49.45	0	50.00		98.9	83.6	123				
Surr: Toluene-d8	49.39	0	50.00		98.8	81.8	118				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702103

ANALYTICAL QC SUMMARY REPORT

BatchID: 237525

Sample ID: LCS-237525	Client ID:					Units: ug/L	Prep Date: 02/03/2017	Run No: 335685			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 237525	Analysis Date: 02/03/2017	Seq No: 7330144			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	52.86	5.0	50.00		106	68	139				
Benzene	52.76	5.0	50.00		106	74	125				
Chlorobenzene	50.82	5.0	50.00		102	75.7	123				
Toluene	55.26	5.0	50.00		111	75.9	126				
Trichloroethene	56.55	5.0	50.00		113	70.6	129				
Surr: 4-Bromofluorobenzene	45.58	0	50.00		91.2	66.1	129				
Surr: Dibromofluoromethane	49.51	0	50.00		99.0	83.6	123				
Surr: Toluene-d8	49.94	0	50.00		99.9	81.8	118				

Sample ID: 1702103-010AMS	Client ID: MW-3A	Units: ug/L			Prep Date: 02/03/2017	Run No: 335685					
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 237525			Analysis Date: 02/03/2017	Seq No: 7330164					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	486.7	50	500.0		97.3	64.3	149				
Benzene	500.5	50	500.0		100	71.6	132				
Chlorobenzene	495.5	50	500.0		99.1	73.1	126				
Toluene	518.4	50	500.0		104	72.5	135				
Trichloroethene	1814	50	500.0	1253	112	70.2	132				
Surr: 4-Bromofluorobenzene	457.9	0	500.0		91.6	66.1	129				
Surr: Dibromofluoromethane	475.7	0	500.0		95.1	83.6	123				
Surr: Toluene-d8	490.1	0	500.0		98.0	81.8	118				

Sample ID: 1702103-010AMSD	Client ID: MW-3A	Units: ug/L			Prep Date: 02/03/2017	Run No: 335685					
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 237525			Analysis Date: 02/03/2017	Seq No: 7330165					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	465.3	50	500.0		93.1	64.3	149	486.7	4.50	30.8	
Benzene	479.7	50	500.0		95.9	71.6	132	500.5	4.24	20.7	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
Project Name: Cessna
Workorder: 1702103

ANALYTICAL QC SUMMARY REPORT

BatchID: 237525

Sample ID: 1702103-010AMSD	Client ID: MW-3A	Units: ug/L	Prep Date: 02/03/2017	Run No: 335685							
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B	BatchID: 237525	Analysis Date: 02/03/2017	Seq No: 7330165							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	458.6	50	500.0		91.7	73.1	126	495.5	7.74	26.6	
Toluene	501.7	50	500.0		100	72.5	135	518.4	3.27	23.2	
Trichloroethene	1762	50	500.0	1253	102	70.2	132	1814	2.95	27.7	
Surr: 4-Bromofluorobenzene	452.8	0	500.0		90.6	66.1	129	457.9	0	0	
Surr: Dibromofluoromethane	490.9	0	500.0		98.2	83.6	123	475.7	0	0	
Surr: Toluene-d8	507.3	0	500.0		101	81.8	118	490.1	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



Attachment B
1st 2017 SVE System Monitoring Report

1st 2017 Semi-Annual SVE System Monitoring Report

Cessna Aircraft Company GA1 Facility Columbus, Muscogee County, Georgia

The Georgia Environmental Protection Division (EPD) accepted this site into Georgia's Voluntary Remediation Program (VRP) on September 27, 2016, and approved the Voluntary Investigation and Remediation Plan (VIRP) and VRP application dated March 24, 2016. As part of Cessna's voluntary remediation efforts, a soil vapor extraction (SVE) system was installed beneath the building to mitigate volatile organic compounds (VOCs) in soil gas from potentially migrating into the building. The SVE system began operation on February 1, 2017. This report summarizes the SVE system monitoring data for the first 2017 semi-annual reporting period.

SVE System Description

The SVE system consists of four SVE wells and three vapor monitoring points (**Figure B-1**). The SVE wells are 2-inch diameter PVC and screened from 5 to 15 feet below the floor slab. The vapor monitoring points are small diameter tubes that are sealed and extend beneath the floor slab. The extracted vapors are carried in PVC piping from floor level up to the roof rafters and then to the exterior wall and down to ground level to the SVE blower located on the exterior of the building. System monitoring is performed quarterly.

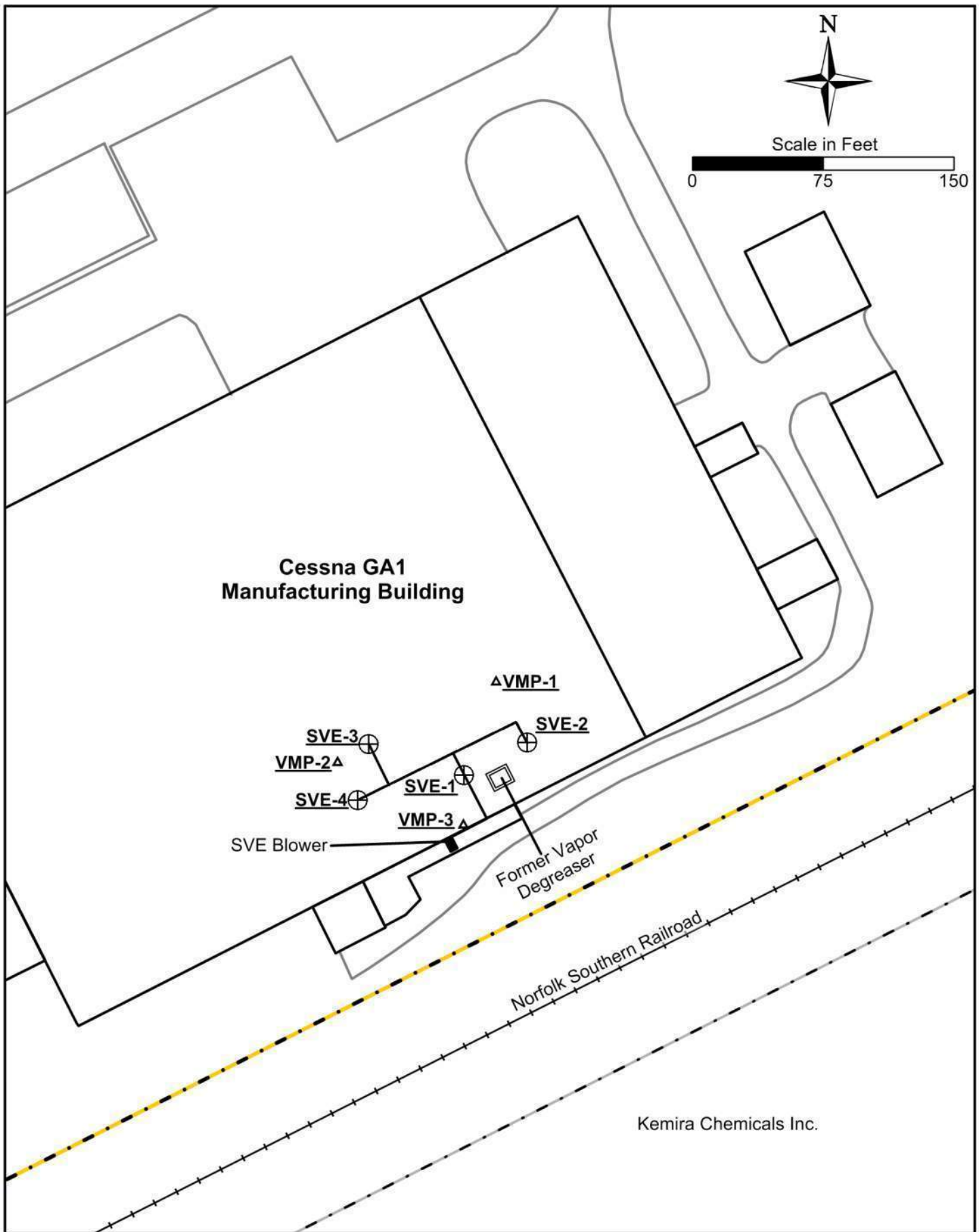
Results

SVE well sampling was completed prior to system installation and again on the first day of system operation following approximately one hour of operation. The analytical results for each SVE well are summarized in **Table B-1** through **Table B-4**. The combined flow at the SVE discharge is sampled to calculate emission rates (**Table B-5**). The full laboratory reports are in **Attachment B-1**. After one hour of system operation, the following vacuum measurements were recorded from the vapor monitoring points.

- VMP-1 – 2.5 Inches of water
- VMP-2 – 3.7 Inches of water
- VMP-3 – 0.04 Inches of water

Conclusions

The measured vacuums indicate that the system is capable of creating a negative pressures beneath the floor slab, which should reduce or eliminate sub-slab vapor intrusion into the building. The laboratory analyses show that trichloroethene is the dominant VOC in soil gas and it was the highest at SVE-1, which is the SVE well nearest the former vapor degreaser location. Four additional VOCs exceeded the EPA's Vapor Intrusion Screening Level (VISL) for soil gas. The output from the VISL Calculator are in **Attachment B-2**. The combined discharge from the system after one hour of operation was below the applicable permitting requirements and this discharge is expected to decline rapidly with continued operation.



Constituent (ug/m ³)	VISL _{SG}	Pre-SVE	SVE-1 Operation						
			02/01/17						
1,1,1-Trichloroethane	73,000	<11	1,700						
1,1,2-Trichloroethane	2.9	<11	2,200						
1,1-Dichloroethane	2,600	<8.2	17,000						
1,1-Dichloroethene	2,900	120	34,000						
1,2,4-Trimethylbenzene	100	9.6	<49						
2-Butanone	73,000	-	74						
2-Propanol	2,900	-	<180						
Acetone	450,000	320	<120						
Benzene	440	10	89						
Carbon Disulfide	10,000	10J	86						
Chloroform	180	<9.9	3,800						
cis-1,2-Dichloroethene	NC	<8	38,000						
Ethyl Acetate	1,000	-	<36						
Ethyl Benzene	1,600	9.4	<43						
Trichlorofluoromethane	NC	<11	<56						
Trichlorotrifluoroethane	440,000	-	170						
Tetrachloroethene	580	<14	550						
Tetrahydrofuran	29,000	<150	3,200						
Toluene	73,000	79	62						
trans-1,2-Dichloroethene	NC	<8.0	3,400						
Trichloroethene	29	160	6,100,000						
Vinyl Chloride	930	150	180						
Xylene, m&p	1,500	33	<87						
Xylene, o	1,500	12	<43						

VISL_{SG} - Soil gas vapor intrusion screening level

NC - Not calculated, supporting toxicity data not available

< - Not detected, value is the reporting level (RL)

J - Estimated concentration below the RL

Bold/shaded values exceed the VISL_{SG}

- Not analyzed

Constituent (ug/m ³)	VISL _{SG}	Pre-SVE	SVE-2 Operation							
			02/01/17							
1,1,1-Trichloroethane	73,000	<15,000	580							
1,1,2-Trichloroethane	2.9	<15,000	<55							
1,1-Dichloroethane	2,600	5,800J	2,600							
1,1-Dichloroethene	2,900	8,300J	2,900							
1,2,4-Trimethylbenzene	100	<14,000	<49							
2-Butanone	73,000	-	<29							
2-Propanol	2,900	-	<180							
Acetone	450,000	<170,000	<120							
Benzene	440	<9,100	<32							
Carbon Disulfide	10,000	<22,000	<31							
Chloroform	180	<14,000	700							
cis-1,2-Dichloroethene	NC	22,000	15,000							
Ethyl Acetate	1,000	-	420							
Ethyl Benzene	1,600	<12,000	<43							
Trichlorofluoromethane	NC	<16,000	<56							
Trichlorotrifluoroethane	440,000	-	<77							
Tetrachloroethene	580	<19,000	<68							
Tetrahydrofuran	29,000	<210,000	2,400							
Toluene	73,000	<11,000	38							
trans-1,2-Dichloroethene	NC	<11,000	840							
Trichloroethene	29	2,600,000	700,000							
Vinyl Chloride	930	<7,300	60							
Xylene, m&p	1,500	<31,000	<87							
Xylene, o	1,500	<12,000	<43							

VISL_{SG} - Soil gas vapor intrusion screening level

NC - Not calculated, supporting toxicity data not available

< - Not detected, value is the reporting level (RL)

J - Estimated concentration below the RL

Bold/shaded values exceed the VISL_{SG}

- Not analyzed

Constituent (ug/m ³)	VISL _{SG}	Pre-SVE	SVE-3 Operation							
			02/01/17							
1,1,1-Trichloroethane	73,000	<11	140							
1,1,2-Trichloroethane	2.9	<11	<55							
1,1-Dichloroethane	2,600	1.9J	1,100							
1,1-Dichloroethene	2,900	120	3,900							
1,2,4-Trimethylbenzene	100	<10	<49							
2-Butanone	73,000	-	<29							
2-Propanol	2,900	-	<180							
Acetone	450,000	380	<120							
Benzene	440	1.8J	<32							
Carbon Disulfide	10,000	8J	<31							
Chloroform	180	<10	78							
cis-1,2-Dichloroethene	NC	15	46							
Ethyl Acetate	1,000	-	280							
Ethyl Benzene	1,600	<8.9	<43							
Trichlorofluoromethane	NC	<11	<56							
Trichlorotrifluoroethane	440,000	-	<77							
Tetrachloroethene	580	<14	<68							
Tetrahydrofuran	29,000	<150	960							
Toluene	73,000	<7.7	<38							
trans-1,2-Dichloroethene	NC	<8.1	<40							
Trichloroethene	29	110	81,000							
Vinyl Chloride	930	3.3J	<26							
Xylene, m&p	1,500	<22	<87							
Xylene, o	1,500	<8.9	<43							

VISL_{SG} - Soil gas vapor intrusion screening level

NC - Not calculated, supporting toxicity data not available

< - Not detected, value is the reporting level (RL)

J - Estimated concentration below the RL

Bold/shaded values exceed the VISL_{SG}

- Not analyzed

Constituent (ug/m ³)	VISL _{SG}	Pre-SVE	SVE-4 Operation							
			02/01/17							
1,1,1-Trichloroethane	73,000	44	32							
1,1,2-Trichloroethane	2.9	<38	<5.5							
1,1-Dichloroethane	2,600	54	110							
1,1-Dichloroethene	2,900	1,400	1,700							
1,2,4-Trimethylbenzene	100	16J	<4.9							
2-Butanone	73,000	-	5.9							
2-Propanol	2,900	-	33							
Acetone	450,000	<410	34							
Benzene	440	7.8J	7.8							
Carbon Disulfide	10,000	<54	<3.1							
Chloroform	180	<34	15							
cis-1,2-Dichloroethene	NC	<27	<4.0							
Ethyl Acetate	1,000	-	470							
Ethyl Benzene	1,600	13J	7.2							
Trichlorofluoromethane	NC	80	69							
Trichlorotrifluoroethane	440,000	-	95							
Tetrachloroethene	580	11J	<6.8							
Tetrahydrofuran	29,000	530	290							
Toluene	73,000	77	61							
trans-1,2-Dichloroethene	NC	<27	<4.0							
Trichloroethene	29	4,600	2,000							
Vinyl Chloride	930	<18	<2.6							
Xylene, m&p	1,500	45J	31							
Xylene, o	1,500	17J	6.3							

VISL_{SG} - Soil gas vapor intrusion screening level

NC - Not calculated, supporting toxicity data not available

< - Not detected, value is the reporting level (RL)

J - Estimated concentration below the RL

Bold/shaded values exceed the VISL_{SG}

- Not analyzed

Hazardous Air Pollutants (HAPs), mg/m³	2/1/2017					
1,1,1-Trichloroethane	0.24					
1,1,2-Trichloroethane	0.057					
1,1-Dichloroethane	3					
Benzene	BRL					
Carbon Disulfide	BRL					
Chloroform	0.36					
Ethyl Benzene	BRL					
Methyl Isobutyl Ketone	BRL					
Styrene	BRL					
Tetrachloroethene	BRL					
Toluene	BRL					
Trichloroethene	510					
Vinyl Chloride	BRL					
Xylene, m&p	BRL					
Xylene, o	BRL					
Total HAPs	513	0	0	0	0	0
Flowrate, cubic feet/minute	115					
Daily Emission Rate, pounds/day	5.3	0.0	0.0	0.0	0.0	0.0

Combined SVE System Discharge

Hazardous Air Pollutants (HAPs), mg/m³						
1,1,1-Trichloroethane						
1,1,2-Trichloroethane						
1,1-Dichloroethane						
Benzene						
Carbon Disulfide						
Chloroform						
Ethyl Benzene						
Methyl Isobutyl Ketone						
Styrene						
Tetrachloroethene						
Toluene						
Trichloroethene						
Vinyl Chloride						
Xylene, m&p						
Xylene, o						
Total HAPs	0	0	0	0	0	0
Flowrate, cubic feet/minute						
Daily Emission Rate, pounds/day	0.0	0.0	0.0	0.0	0.0	0.0

BRL - Below reporting level

Constituents listed are those HAPs previously detected in any soil vapor sample.

Attachment B-1
Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Burlington

30 Community Drive

Suite 11

South Burlington, VT 05403

Tel: (802)660-1990

TestAmerica Job ID: 200-34029-1

TestAmerica Sample Delivery Group: 200-34029-1

Client Project/Site: Cessna

For:

CDM Smith, Inc.

3715 Northside Parkway, NW

Building 300, Suite 400

Atlanta, Georgia 30327

Attn: Mr. Jeff Weeber



Authorized for release by:

6/28/2016 2:40:01 PM

James Madison, Senior Project Manager

(802)660-1990

jim.madison@testamericainc.com

Designee for

Don Dawicki, Manager of Project Management

(802)660-1990

don.dawicki@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	8
QC Sample Results	21
QC Association Summary	28
Lab Chronicle	29
Certification Summary	30
Method Summary	31
Sample Summary	32
Chain of Custody	33
Receipt Checklists	35
Clean Canister Certification	36
Pre-Ship Certification	36
Clean Canister Data	39

Definitions/Glossary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Job ID: 200-34029-1

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: CDM Smith, Inc.

Project: Cessna

Report Number: 200-34029-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/17/2016; the samples arrived in good condition.

During the canister pressure check performed upon receipt, it was observed that samples SVE-1 and SVE-3 were received at an elevated residual vacuum level. The associated flow controllers were evaluated upon receipt and were found to be outside the acceptable flow range as compared to the original set flow rate. The client was contacted, and the laboratory was instructed to proceed with the analysis with the addition of makeup air.

VOLATILE ORGANIC COMPOUNDS

Samples SVE-1, SVE-3, SVE-4 and SVE-2 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 06/23/2016.

Samples SVE-1[10.1X], SVE-3[10.2X], SVE-4[34.6X] and SVE-2[14200X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Lab Sample ID: 200-34029-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.5	J	5.1	0.81	ppb v/v	10.1		TO-15	Total/NA
Freon 22	12		5.1	0.58	ppb v/v	10.1		TO-15	Total/NA
n-Butane	240		5.1	0.79	ppb v/v	10.1		TO-15	Total/NA
Vinyl chloride	59		2.0	0.32	ppb v/v	10.1		TO-15	Total/NA
1,1-Dichloroethene	30		2.0	0.36	ppb v/v	10.1		TO-15	Total/NA
Acetone	140		51	8.7	ppb v/v	10.1		TO-15	Total/NA
Isopropyl alcohol	22	J	51	9.9	ppb v/v	10.1		TO-15	Total/NA
Carbon disulfide	3.3	J	5.1	0.43	ppb v/v	10.1		TO-15	Total/NA
Methylene Chloride	3.1	J	5.1	1.8	ppb v/v	10.1		TO-15	Total/NA
n-Hexane	68		2.0	0.55	ppb v/v	10.1		TO-15	Total/NA
Methyl Ethyl Ketone	4.9	J	5.1	0.53	ppb v/v	10.1		TO-15	Total/NA
Cyclohexane	3.0		2.0	0.39	ppb v/v	10.1		TO-15	Total/NA
2,2,4-Trimethylpentane	2.5		2.0	0.39	ppb v/v	10.1		TO-15	Total/NA
Benzene	3.2		2.0	0.42	ppb v/v	10.1		TO-15	Total/NA
n-Heptane	4.0		2.0	0.40	ppb v/v	10.1		TO-15	Total/NA
Trichloroethene	30		2.0	0.39	ppb v/v	10.1		TO-15	Total/NA
methyl isobutyl ketone	1.3	J	5.1	0.51	ppb v/v	10.1		TO-15	Total/NA
Toluene	21		2.0	0.94	ppb v/v	10.1		TO-15	Total/NA
Ethylbenzene	2.2		2.0	0.33	ppb v/v	10.1		TO-15	Total/NA
m,p-Xylene	7.6		5.1	0.72	ppb v/v	10.1		TO-15	Total/NA
Xylene, o-	2.8		2.0	0.37	ppb v/v	10.1		TO-15	Total/NA
Xylene (total)	10		7.1	0.37	ppb v/v	10.1		TO-15	Total/NA
Styrene	0.66	J	2.0	0.43	ppb v/v	10.1		TO-15	Total/NA
4-Ethyltoluene	0.67	J	2.0	0.44	ppb v/v	10.1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.56	J	2.0	0.39	ppb v/v	10.1		TO-15	Total/NA
1,2,4-Trimethylbenzene	2.0		2.0	0.43	ppb v/v	10.1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	12	J	25	4.0	ug/m3	10.1		TO-15	Total/NA
Freon 22	43		18	2.0	ug/m3	10.1		TO-15	Total/NA
n-Butane	580		12	1.9	ug/m3	10.1		TO-15	Total/NA
Vinyl chloride	150		5.2	0.83	ug/m3	10.1		TO-15	Total/NA
1,1-Dichloroethene	120		8.0	1.4	ug/m3	10.1		TO-15	Total/NA
Acetone	320		120	21	ug/m3	10.1		TO-15	Total/NA
Isopropyl alcohol	54	J	120	24	ug/m3	10.1		TO-15	Total/NA
Carbon disulfide	10	J	16	1.4	ug/m3	10.1		TO-15	Total/NA
Methylene Chloride	11	J	18	6.3	ug/m3	10.1		TO-15	Total/NA
n-Hexane	240		7.1	1.9	ug/m3	10.1		TO-15	Total/NA
Methyl Ethyl Ketone	14	J	15	1.5	ug/m3	10.1		TO-15	Total/NA
Cyclohexane	10		7.0	1.4	ug/m3	10.1		TO-15	Total/NA
2,2,4-Trimethylpentane	12		9.4	1.8	ug/m3	10.1		TO-15	Total/NA
Benzene	10		6.5	1.4	ug/m3	10.1		TO-15	Total/NA
n-Heptane	16		8.3	1.7	ug/m3	10.1		TO-15	Total/NA
Trichloroethene	160		11	2.1	ug/m3	10.1		TO-15	Total/NA
methyl isobutyl ketone	5.5	J	21	2.1	ug/m3	10.1		TO-15	Total/NA
Toluene	79		7.6	3.5	ug/m3	10.1		TO-15	Total/NA
Ethylbenzene	9.4		8.8	1.4	ug/m3	10.1		TO-15	Total/NA
m,p-Xylene	33		22	3.1	ug/m3	10.1		TO-15	Total/NA
Xylene, o-	12		8.8	1.6	ug/m3	10.1		TO-15	Total/NA
Xylene (total)	45		31	1.6	ug/m3	10.1		TO-15	Total/NA
Styrene	2.8	J	8.6	1.8	ug/m3	10.1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Detection Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1 (Continued)

Lab Sample ID: 200-34029-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Ethyltoluene	3.3	J	9.9	2.2	ug/m3	10.1		TO-15	Total/NA
1,3,5-Trimethylbenzene	2.8	J	9.9	1.9	ug/m3	10.1		TO-15	Total/NA
1,2,4-Trimethylbenzene	9.6		9.9	2.1	ug/m3	10.1		TO-15	Total/NA

Client Sample ID: SVE-3

Lab Sample ID: 200-34029-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	10		5.1	0.58	ppb v/v	10.2		TO-15	Total/NA
n-Butane	120		5.1	0.80	ppb v/v	10.2		TO-15	Total/NA
Vinyl chloride	1.3	J	2.0	0.33	ppb v/v	10.2		TO-15	Total/NA
1,1-Dichloroethene	31		2.0	0.37	ppb v/v	10.2		TO-15	Total/NA
Acetone	160		51	8.8	ppb v/v	10.2		TO-15	Total/NA
Isopropyl alcohol	21	J	51	10	ppb v/v	10.2		TO-15	Total/NA
Carbon disulfide	2.6	J	5.1	0.44	ppb v/v	10.2		TO-15	Total/NA
n-Hexane	51		2.0	0.55	ppb v/v	10.2		TO-15	Total/NA
1,1-Dichloroethane	0.47	J	2.0	0.26	ppb v/v	10.2		TO-15	Total/NA
Methyl Ethyl Ketone	5.0	J	5.1	0.53	ppb v/v	10.2		TO-15	Total/NA
cis-1,2-Dichloroethene	3.8		2.0	0.36	ppb v/v	10.2		TO-15	Total/NA
1,2-Dichloroethene, Total	3.8	J	4.1	0.36	ppb v/v	10.2		TO-15	Total/NA
Cyclohexane	1.9	J	2.0	0.40	ppb v/v	10.2		TO-15	Total/NA
Benzene	0.57	J	2.0	0.43	ppb v/v	10.2		TO-15	Total/NA
Trichloroethene	20		2.0	0.40	ppb v/v	10.2		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	36		18	2.1	ug/m3	10.2		TO-15	Total/NA
n-Butane	280		12	1.9	ug/m3	10.2		TO-15	Total/NA
Vinyl chloride	3.3	J	5.2	0.83	ug/m3	10.2		TO-15	Total/NA
1,1-Dichloroethene	120		8.1	1.5	ug/m3	10.2		TO-15	Total/NA
Acetone	380		120	21	ug/m3	10.2		TO-15	Total/NA
Isopropyl alcohol	52	J	130	25	ug/m3	10.2		TO-15	Total/NA
Carbon disulfide	8.0	J	16	1.4	ug/m3	10.2		TO-15	Total/NA
n-Hexane	180		7.2	1.9	ug/m3	10.2		TO-15	Total/NA
1,1-Dichloroethane	1.9	J	8.3	1.0	ug/m3	10.2		TO-15	Total/NA
Methyl Ethyl Ketone	15	J	15	1.6	ug/m3	10.2		TO-15	Total/NA
cis-1,2-Dichloroethene	15		8.1	1.4	ug/m3	10.2		TO-15	Total/NA
1,2-Dichloroethene, Total	15	J	16	1.4	ug/m3	10.2		TO-15	Total/NA
Cyclohexane	6.4	J	7.0	1.4	ug/m3	10.2		TO-15	Total/NA
Benzene	1.8	J	6.5	1.4	ug/m3	10.2		TO-15	Total/NA
Trichloroethene	110		11	2.1	ug/m3	10.2		TO-15	Total/NA

Client Sample ID: SVE-4

Lab Sample ID: 200-34029-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	5.8	J	17	2.0	ppb v/v	34.6		TO-15	Total/NA
n-Butane	20		17	2.7	ppb v/v	34.6		TO-15	Total/NA
Trichlorofluoromethane	14		6.9	1.3	ppb v/v	34.6		TO-15	Total/NA
Freon TF	20		6.9	2.6	ppb v/v	34.6		TO-15	Total/NA
1,1-Dichloroethene	360		6.9	1.2	ppb v/v	34.6		TO-15	Total/NA
n-Hexane	27		6.9	1.9	ppb v/v	34.6		TO-15	Total/NA
1,1-Dichloroethane	13		6.9	0.87	ppb v/v	34.6		TO-15	Total/NA
Tetrahydrofuran	180		170	48	ppb v/v	34.6		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Detection Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-4 (Continued)

Lab Sample ID: 200-34029-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	8.0		6.9	1.6	ppb v/v	34.6		TO-15	Total/NA
Benzene	2.4	J	6.9	1.5	ppb v/v	34.6		TO-15	Total/NA
n-Heptane	3.2	J	6.9	1.4	ppb v/v	34.6		TO-15	Total/NA
Trichloroethene	860		6.9	1.3	ppb v/v	34.6		TO-15	Total/NA
Toluene	20		6.9	3.2	ppb v/v	34.6		TO-15	Total/NA
Tetrachloroethene	1.7	J	6.9	0.80	ppb v/v	34.6		TO-15	Total/NA
Ethylbenzene	3.0	J	6.9	1.1	ppb v/v	34.6		TO-15	Total/NA
m,p-Xylene	10	J	17	2.5	ppb v/v	34.6		TO-15	Total/NA
Xylene, o-	3.8	J	6.9	1.3	ppb v/v	34.6		TO-15	Total/NA
Xylene (total)	14	J	24	1.3	ppb v/v	34.6		TO-15	Total/NA
Cumene	3.4	J	6.9	1.0	ppb v/v	34.6		TO-15	Total/NA
1,2,4-Trimethylbenzene	3.2	J	6.9	1.5	ppb v/v	34.6		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	20	J	61	7.0	ug/m3	34.6		TO-15	Total/NA
n-Butane	46		41	6.4	ug/m3	34.6		TO-15	Total/NA
Trichlorofluoromethane	80		39	7.4	ug/m3	34.6		TO-15	Total/NA
Freon TF	150		53	20	ug/m3	34.6		TO-15	Total/NA
1,1-Dichloroethene	1400		27	4.9	ug/m3	34.6		TO-15	Total/NA
n-Hexane	95		24	6.6	ug/m3	34.6		TO-15	Total/NA
1,1-Dichloroethane	54		28	3.5	ug/m3	34.6		TO-15	Total/NA
Tetrahydrofuran	530		510	140	ug/m3	34.6		TO-15	Total/NA
1,1,1-Trichloroethane	44		38	8.7	ug/m3	34.6		TO-15	Total/NA
Benzene	7.8	J	22	4.6	ug/m3	34.6		TO-15	Total/NA
n-Heptane	13	J	28	5.7	ug/m3	34.6		TO-15	Total/NA
Trichloroethene	4600		37	7.3	ug/m3	34.6		TO-15	Total/NA
Toluene	77		26	12	ug/m3	34.6		TO-15	Total/NA
Tetrachloroethene	11	J	47	5.4	ug/m3	34.6		TO-15	Total/NA
Ethylbenzene	13	J	30	5.0	ug/m3	34.6		TO-15	Total/NA
m,p-Xylene	45	J	75	11	ug/m3	34.6		TO-15	Total/NA
Xylene, o-	17	J	30	5.6	ug/m3	34.6		TO-15	Total/NA
Xylene (total)	60	J	110	5.6	ug/m3	34.6		TO-15	Total/NA
Cumene	17	J	34	5.1	ug/m3	34.6		TO-15	Total/NA
1,2,4-Trimethylbenzene	16	J	34	7.3	ug/m3	34.6		TO-15	Total/NA

Client Sample ID: SVE-2

Lab Sample ID: 200-34029-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2100	J	2800	510	ppb v/v	14200		TO-15	Total/NA
1,1-Dichloroethane	1400	J	2800	360	ppb v/v	14200		TO-15	Total/NA
cis-1,2-Dichloroethene	5600		2800	500	ppb v/v	14200		TO-15	Total/NA
1,2-Dichloroethene, Total	5600	J	5700	500	ppb v/v	14200		TO-15	Total/NA
Trichloroethene	480000		2800	550	ppb v/v	14200		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	8300	J	11000	2000	ug/m3	14200		TO-15	Total/NA
1,1-Dichloroethane	5800	J	11000	1400	ug/m3	14200		TO-15	Total/NA
cis-1,2-Dichloroethene	22000		11000	2000	ug/m3	14200		TO-15	Total/NA
1,2-Dichloroethene, Total	22000	J	23000	2000	ug/m3	14200		TO-15	Total/NA
Trichloroethene	2600000		15000	3000	ug/m3	14200		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Lab Sample ID: 200-34029-1

Date Collected: 06/14/16 10:53

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	J	5.1	0.81	ppb v/v			06/23/16 03:20	10.1
Freon 22	12		5.1	0.58	ppb v/v			06/23/16 03:20	10.1
1,2-Dichlorotetrafluoroethane	2.0	U	2.0	0.38	ppb v/v			06/23/16 03:20	10.1
Chloromethane	5.1	U	5.1	0.94	ppb v/v			06/23/16 03:20	10.1
n-Butane	240		5.1	0.79	ppb v/v			06/23/16 03:20	10.1
Vinyl chloride	59		2.0	0.32	ppb v/v			06/23/16 03:20	10.1
1,3-Butadiene	2.0	U	2.0	0.90	ppb v/v			06/23/16 03:20	10.1
Bromomethane	2.0	U	2.0	0.57	ppb v/v			06/23/16 03:20	10.1
Chloroethane	5.1	U	5.1	0.86	ppb v/v			06/23/16 03:20	10.1
Bromoethene(Vinyl Bromide)	2.0	U	2.0	0.44	ppb v/v			06/23/16 03:20	10.1
Trichlorofluoromethane	2.0	U	2.0	0.38	ppb v/v			06/23/16 03:20	10.1
Freon TF	2.0	U	2.0	0.76	ppb v/v			06/23/16 03:20	10.1
1,1-Dichloroethene	30		2.0	0.36	ppb v/v			06/23/16 03:20	10.1
Acetone	140		51	8.7	ppb v/v			06/23/16 03:20	10.1
Isopropyl alcohol	22	J	51	9.9	ppb v/v			06/23/16 03:20	10.1
Carbon disulfide	3.3	J	5.1	0.43	ppb v/v			06/23/16 03:20	10.1
3-Chloropropene	5.1	U	5.1	0.69	ppb v/v			06/23/16 03:20	10.1
Methylene Chloride	3.1	J	5.1	1.8	ppb v/v			06/23/16 03:20	10.1
tert-Butyl alcohol	51	U	51	8.6	ppb v/v			06/23/16 03:20	10.1
Methyl tert-butyl ether	2.0	U	2.0	0.90	ppb v/v			06/23/16 03:20	10.1
trans-1,2-Dichloroethene	2.0	U	2.0	0.43	ppb v/v			06/23/16 03:20	10.1
n-Hexane	68		2.0	0.55	ppb v/v			06/23/16 03:20	10.1
1,1-Dichloroethane	2.0	U	2.0	0.25	ppb v/v			06/23/16 03:20	10.1
Methyl Ethyl Ketone	4.9	J	5.1	0.53	ppb v/v			06/23/16 03:20	10.1
cis-1,2-Dichloroethene	2.0	U	2.0	0.35	ppb v/v			06/23/16 03:20	10.1
1,2-Dichloroethene, Total	4.0	U	4.0	0.35	ppb v/v			06/23/16 03:20	10.1
Chloroform	2.0	U	2.0	0.83	ppb v/v			06/23/16 03:20	10.1
Tetrahydrofuran	51	U	51	14	ppb v/v			06/23/16 03:20	10.1
1,1,1-Trichloroethane	2.0	U	2.0	0.46	ppb v/v			06/23/16 03:20	10.1
Cyclohexane	3.0		2.0	0.39	ppb v/v			06/23/16 03:20	10.1
Carbon tetrachloride	2.0	U	2.0	0.32	ppb v/v			06/23/16 03:20	10.1
2,2,4-Trimethylpentane	2.5		2.0	0.39	ppb v/v			06/23/16 03:20	10.1
Benzene	3.2		2.0	0.42	ppb v/v			06/23/16 03:20	10.1
1,2-Dichloroethane	2.0	U	2.0	0.41	ppb v/v			06/23/16 03:20	10.1
n-Heptane	4.0		2.0	0.40	ppb v/v			06/23/16 03:20	10.1
Trichloroethene	30		2.0	0.39	ppb v/v			06/23/16 03:20	10.1
Methyl methacrylate	5.1	U	5.1	0.40	ppb v/v			06/23/16 03:20	10.1
1,2-Dichloropropane	2.0	U	2.0	0.27	ppb v/v			06/23/16 03:20	10.1
1,4-Dioxane	51	U	51	5.7	ppb v/v			06/23/16 03:20	10.1
Bromodichloromethane	2.0	U	2.0	0.30	ppb v/v			06/23/16 03:20	10.1
cis-1,3-Dichloropropene	2.0	U	2.0	0.23	ppb v/v			06/23/16 03:20	10.1
methyl isobutyl ketone	1.3	J	5.1	0.51	ppb v/v			06/23/16 03:20	10.1
Toluene	21		2.0	0.94	ppb v/v			06/23/16 03:20	10.1
trans-1,3-Dichloropropene	2.0	U	2.0	0.34	ppb v/v			06/23/16 03:20	10.1
1,1,2-Trichloroethane	2.0	U	2.0	0.39	ppb v/v			06/23/16 03:20	10.1
Tetrachloroethene	2.0	U	2.0	0.23	ppb v/v			06/23/16 03:20	10.1
Methyl Butyl Ketone (2-Hexanone)	5.1	U	5.1	0.58	ppb v/v			06/23/16 03:20	10.1
Dibromochloromethane	2.0	U	2.0	0.44	ppb v/v			06/23/16 03:20	10.1

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Lab Sample ID: 200-34029-1

Date Collected: 06/14/16 10:53

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	2.0	U	2.0	0.39	ppb v/v			06/23/16 03:20	10.1
Chlorobenzene	2.0	U	2.0	0.49	ppb v/v			06/23/16 03:20	10.1
Ethylbenzene	2.2		2.0	0.33	ppb v/v			06/23/16 03:20	10.1
m,p-Xylene	7.6		5.1	0.72	ppb v/v			06/23/16 03:20	10.1
Xylene, o-	2.8		2.0	0.37	ppb v/v			06/23/16 03:20	10.1
Xylene (total)	10		7.1	0.37	ppb v/v			06/23/16 03:20	10.1
Styrene	0.66	J	2.0	0.43	ppb v/v			06/23/16 03:20	10.1
Bromoform	2.0	U	2.0	0.57	ppb v/v			06/23/16 03:20	10.1
Cumene	2.0	U	2.0	0.30	ppb v/v			06/23/16 03:20	10.1
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.44	ppb v/v			06/23/16 03:20	10.1
n-Propylbenzene	2.0	U	2.0	0.43	ppb v/v			06/23/16 03:20	10.1
4-Ethyltoluene	0.67	J	2.0	0.44	ppb v/v			06/23/16 03:20	10.1
1,3,5-Trimethylbenzene	0.56	J	2.0	0.39	ppb v/v			06/23/16 03:20	10.1
2-Chlorotoluene	2.0	U	2.0	0.33	ppb v/v			06/23/16 03:20	10.1
tert-Butylbenzene	2.0	U	2.0	0.44	ppb v/v			06/23/16 03:20	10.1
1,2,4-Trimethylbenzene	2.0		2.0	0.43	ppb v/v			06/23/16 03:20	10.1
sec-Butylbenzene	2.0	U	2.0	0.44	ppb v/v			06/23/16 03:20	10.1
4-Isopropyltoluene	2.0	U	2.0	0.37	ppb v/v			06/23/16 03:20	10.1
1,3-Dichlorobenzene	2.0	U	2.0	0.56	ppb v/v			06/23/16 03:20	10.1
1,4-Dichlorobenzene	2.0	U	2.0	0.58	ppb v/v			06/23/16 03:20	10.1
Benzyl chloride	2.0	U	2.0	0.54	ppb v/v			06/23/16 03:20	10.1
n-Butylbenzene	2.0	U	2.0	0.47	ppb v/v			06/23/16 03:20	10.1
1,2-Dichlorobenzene	2.0	U	2.0	0.56	ppb v/v			06/23/16 03:20	10.1
1,2,4-Trichlorobenzene	5.1	U	5.1	0.69	ppb v/v			06/23/16 03:20	10.1
Hexachlorobutadiene	2.0	U	2.0	0.83	ppb v/v			06/23/16 03:20	10.1
Naphthalene	5.1	U	5.1	0.58	ppb v/v			06/23/16 03:20	10.1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	12	J	25	4.0	ug/m3			06/23/16 03:20	10.1
Freon 22	43		18	2.0	ug/m3			06/23/16 03:20	10.1
1,2-Dichlorotetrafluoroethane	14	U	14	2.7	ug/m3			06/23/16 03:20	10.1
Chloromethane	10	U	10	1.9	ug/m3			06/23/16 03:20	10.1
n-Butane	580		12	1.9	ug/m3			06/23/16 03:20	10.1
Vinyl chloride	150		5.2	0.83	ug/m3			06/23/16 03:20	10.1
1,3-Butadiene	4.5	U	4.5	2.0	ug/m3			06/23/16 03:20	10.1
Bromomethane	7.8	U	7.8	2.2	ug/m3			06/23/16 03:20	10.1
Chloroethane	13	U	13	2.3	ug/m3			06/23/16 03:20	10.1
Bromoethene(Vinyl Bromide)	8.8	U	8.8	1.9	ug/m3			06/23/16 03:20	10.1
Trichlorofluoromethane	11	U	11	2.2	ug/m3			06/23/16 03:20	10.1
Freon TF	15	U	15	5.8	ug/m3			06/23/16 03:20	10.1
1,1-Dichloroethene	120		8.0	1.4	ug/m3			06/23/16 03:20	10.1
Acetone	320		120	21	ug/m3			06/23/16 03:20	10.1
Isopropyl alcohol	54	J	120	24	ug/m3			06/23/16 03:20	10.1
Carbon disulfide	10	J	16	1.4	ug/m3			06/23/16 03:20	10.1
3-Chloropropene	16	U	16	2.1	ug/m3			06/23/16 03:20	10.1
Methylene Chloride	11	J	18	6.3	ug/m3			06/23/16 03:20	10.1
tert-Butyl alcohol	150	U	150	26	ug/m3			06/23/16 03:20	10.1
Methyl tert-butyl ether	7.3	U	7.3	3.2	ug/m3			06/23/16 03:20	10.1
trans-1,2-Dichloroethene	8.0	U	8.0	1.7	ug/m3			06/23/16 03:20	10.1

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Lab Sample ID: 200-34029-1

Date Collected: 06/14/16 10:53

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	240		7.1	1.9	ug/m3			06/23/16 03:20	10.1
1,1-Dichloroethane	8.2	U	8.2	1.0	ug/m3			06/23/16 03:20	10.1
Methyl Ethyl Ketone	14	J	15	1.5	ug/m3			06/23/16 03:20	10.1
cis-1,2-Dichloroethene	8.0	U	8.0	1.4	ug/m3			06/23/16 03:20	10.1
1,2-Dichloroethene, Total	16	U	16	1.4	ug/m3			06/23/16 03:20	10.1
Chloroform	9.9	U	9.9	4.0	ug/m3			06/23/16 03:20	10.1
Tetrahydrofuran	150	U	150	42	ug/m3			06/23/16 03:20	10.1
1,1,1-Trichloroethane	11	U	11	2.5	ug/m3			06/23/16 03:20	10.1
Cyclohexane	10		7.0	1.4	ug/m3			06/23/16 03:20	10.1
Carbon tetrachloride	13	U	13	2.0	ug/m3			06/23/16 03:20	10.1
2,2,4-Trimethylpentane	12		9.4	1.8	ug/m3			06/23/16 03:20	10.1
Benzene	10		6.5	1.4	ug/m3			06/23/16 03:20	10.1
1,2-Dichloroethane	8.2	U	8.2	1.7	ug/m3			06/23/16 03:20	10.1
n-Heptane	16		8.3	1.7	ug/m3			06/23/16 03:20	10.1
Trichloroethene	160		11	2.1	ug/m3			06/23/16 03:20	10.1
Methyl methacrylate	21	U	21	1.7	ug/m3			06/23/16 03:20	10.1
1,2-Dichloropropane	9.3	U	9.3	1.3	ug/m3			06/23/16 03:20	10.1
1,4-Dioxane	180	U	180	20	ug/m3			06/23/16 03:20	10.1
Bromodichloromethane	14	U	14	2.0	ug/m3			06/23/16 03:20	10.1
cis-1,3-Dichloropropene	9.2	U	9.2	1.1	ug/m3			06/23/16 03:20	10.1
methyl isobutyl ketone	5.5	J	21	2.1	ug/m3			06/23/16 03:20	10.1
Toluene	79		7.6	3.5	ug/m3			06/23/16 03:20	10.1
trans-1,3-Dichloropropene	9.2	U	9.2	1.6	ug/m3			06/23/16 03:20	10.1
1,1,2-Trichloroethane	11	U	11	2.1	ug/m3			06/23/16 03:20	10.1
Tetrachloroethene	14	U	14	1.6	ug/m3			06/23/16 03:20	10.1
Methyl Butyl Ketone (2-Hexanone)	21	U	21	2.4	ug/m3			06/23/16 03:20	10.1
Dibromochloromethane	17	U	17	3.8	ug/m3			06/23/16 03:20	10.1
1,2-Dibromoethane	16	U	16	3.0	ug/m3			06/23/16 03:20	10.1
Chlorobenzene	9.3	U	9.3	2.3	ug/m3			06/23/16 03:20	10.1
Ethylbenzene	9.4		8.8	1.4	ug/m3			06/23/16 03:20	10.1
m,p-Xylene	33		22	3.1	ug/m3			06/23/16 03:20	10.1
Xylene, o-	12		8.8	1.6	ug/m3			06/23/16 03:20	10.1
Xylene (total)	45		31	1.6	ug/m3			06/23/16 03:20	10.1
Styrene	2.8	J	8.6	1.8	ug/m3			06/23/16 03:20	10.1
Bromoform	21	U	21	5.8	ug/m3			06/23/16 03:20	10.1
Cumene	9.9	U	9.9	1.5	ug/m3			06/23/16 03:20	10.1
1,1,2,2-Tetrachloroethane	14	U	14	3.1	ug/m3			06/23/16 03:20	10.1
n-Propylbenzene	9.9	U	9.9	2.1	ug/m3			06/23/16 03:20	10.1
4-Ethyltoluene	3.3	J	9.9	2.2	ug/m3			06/23/16 03:20	10.1
1,3,5-Trimethylbenzene	2.8	J	9.9	1.9	ug/m3			06/23/16 03:20	10.1
2-Chlorotoluene	10	U	10	1.7	ug/m3			06/23/16 03:20	10.1
tert-Butylbenzene	11	U	11	2.4	ug/m3			06/23/16 03:20	10.1
1,2,4-Trimethylbenzene	9.6		9.9	2.1	ug/m3			06/23/16 03:20	10.1
sec-Butylbenzene	11	U	11	2.4	ug/m3			06/23/16 03:20	10.1
4-Isopropyltoluene	11	U	11	2.1	ug/m3			06/23/16 03:20	10.1
1,3-Dichlorobenzene	12	U	12	3.3	ug/m3			06/23/16 03:20	10.1
1,4-Dichlorobenzene	12	U	12	3.5	ug/m3			06/23/16 03:20	10.1
Benzyl chloride	10	U	10	2.8	ug/m3			06/23/16 03:20	10.1

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Lab Sample ID: 200-34029-1

Date Collected: 06/14/16 10:53

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	11	U	11	2.6	ug/m3			06/23/16 03:20	10.1
1,2-Dichlorobenzene	12	U	12	3.3	ug/m3			06/23/16 03:20	10.1
1,2,4-Trichlorobenzene	37	U	37	5.1	ug/m3			06/23/16 03:20	10.1
Hexachlorobutadiene	22	U	22	8.8	ug/m3			06/23/16 03:20	10.1
Naphthalene	26	U	26	3.0	ug/m3			06/23/16 03:20	10.1

Client Sample ID: SVE-3

Lab Sample ID: 200-34029-2

Date Collected: 06/14/16 12:40

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.1	U	5.1	0.82	ppb v/v			06/23/16 04:12	10.2
Freon 22	10		5.1	0.58	ppb v/v			06/23/16 04:12	10.2
1,2-Dichlorotetrafluoroethane	2.0	U	2.0	0.39	ppb v/v			06/23/16 04:12	10.2
Chloromethane	5.1	U	5.1	0.95	ppb v/v			06/23/16 04:12	10.2
n-Butane	120		5.1	0.80	ppb v/v			06/23/16 04:12	10.2
Vinyl chloride	1.3	J	2.0	0.33	ppb v/v			06/23/16 04:12	10.2
1,3-Butadiene	2.0	U	2.0	0.91	ppb v/v			06/23/16 04:12	10.2
Bromomethane	2.0	U	2.0	0.57	ppb v/v			06/23/16 04:12	10.2
Chloroethane	5.1	U	5.1	0.87	ppb v/v			06/23/16 04:12	10.2
Bromoethene(Vinyl Bromide)	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
Trichlorofluoromethane	2.0	U	2.0	0.39	ppb v/v			06/23/16 04:12	10.2
Freon TF	2.0	U	2.0	0.77	ppb v/v			06/23/16 04:12	10.2
1,1-Dichloroethene	31		2.0	0.37	ppb v/v			06/23/16 04:12	10.2
Acetone	160		51	8.8	ppb v/v			06/23/16 04:12	10.2
Isopropyl alcohol	21	J	51	10	ppb v/v			06/23/16 04:12	10.2
Carbon disulfide	2.6	J	5.1	0.44	ppb v/v			06/23/16 04:12	10.2
3-Chloropropene	5.1	U	5.1	0.69	ppb v/v			06/23/16 04:12	10.2
Methylene Chloride	5.1	U	5.1	1.8	ppb v/v			06/23/16 04:12	10.2
tert-Butyl alcohol	51	U	51	8.7	ppb v/v			06/23/16 04:12	10.2
Methyl tert-butyl ether	2.0	U	2.0	0.91	ppb v/v			06/23/16 04:12	10.2
trans-1,2-Dichloroethene	2.0	U	2.0	0.44	ppb v/v			06/23/16 04:12	10.2
n-Hexane	51		2.0	0.55	ppb v/v			06/23/16 04:12	10.2
1,1-Dichloroethane	0.47	J	2.0	0.26	ppb v/v			06/23/16 04:12	10.2
Methyl Ethyl Ketone	5.0	J	5.1	0.53	ppb v/v			06/23/16 04:12	10.2
cis-1,2-Dichloroethene	3.8		2.0	0.36	ppb v/v			06/23/16 04:12	10.2
1,2-Dichloroethene, Total	3.8	J	4.1	0.36	ppb v/v			06/23/16 04:12	10.2
Chloroform	2.0	U	2.0	0.84	ppb v/v			06/23/16 04:12	10.2
Tetrahydrofuran	51	U	51	14	ppb v/v			06/23/16 04:12	10.2
1,1,1-Trichloroethane	2.0	U	2.0	0.47	ppb v/v			06/23/16 04:12	10.2
Cyclohexane	1.9	J	2.0	0.40	ppb v/v			06/23/16 04:12	10.2
Carbon tetrachloride	2.0	U	2.0	0.33	ppb v/v			06/23/16 04:12	10.2
2,2,4-Trimethylpentane	2.0	U	2.0	0.40	ppb v/v			06/23/16 04:12	10.2
Benzene	0.57	J	2.0	0.43	ppb v/v			06/23/16 04:12	10.2
1,2-Dichloroethane	2.0	U	2.0	0.42	ppb v/v			06/23/16 04:12	10.2
n-Heptane	2.0	U	2.0	0.41	ppb v/v			06/23/16 04:12	10.2
Trichloroethene	20		2.0	0.40	ppb v/v			06/23/16 04:12	10.2

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-3

Lab Sample ID: 200-34029-2

Date Collected: 06/14/16 12:40

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl methacrylate	5.1	U	5.1	0.41	ppb v/v			06/23/16 04:12	10.2
1,2-Dichloropropane	2.0	U	2.0	0.28	ppb v/v			06/23/16 04:12	10.2
1,4-Dioxane	51	U	51	5.7	ppb v/v			06/23/16 04:12	10.2
Bromodichloromethane	2.0	U	2.0	0.31	ppb v/v			06/23/16 04:12	10.2
cis-1,3-Dichloropropene	2.0	U	2.0	0.23	ppb v/v			06/23/16 04:12	10.2
methyl isobutyl ketone	5.1	U	5.1	0.51	ppb v/v			06/23/16 04:12	10.2
Toluene	2.0	U	2.0	0.95	ppb v/v			06/23/16 04:12	10.2
trans-1,3-Dichloropropene	2.0	U	2.0	0.35	ppb v/v			06/23/16 04:12	10.2
1,1,2-Trichloroethane	2.0	U	2.0	0.40	ppb v/v			06/23/16 04:12	10.2
Tetrachloroethene	2.0	U	2.0	0.23	ppb v/v			06/23/16 04:12	10.2
Methyl Butyl Ketone (2-Hexanone)	5.1	U	5.1	0.58	ppb v/v			06/23/16 04:12	10.2
Dibromochloromethane	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
1,2-Dibromoethane	2.0	U	2.0	0.40	ppb v/v			06/23/16 04:12	10.2
Chlorobenzene	2.0	U	2.0	0.50	ppb v/v			06/23/16 04:12	10.2
Ethylbenzene	2.0	U	2.0	0.34	ppb v/v			06/23/16 04:12	10.2
m,p-Xylene	5.1	U	5.1	0.72	ppb v/v			06/23/16 04:12	10.2
Xylene, o-	2.0	U	2.0	0.38	ppb v/v			06/23/16 04:12	10.2
Xylene (total)	7.1	U	7.1	0.38	ppb v/v			06/23/16 04:12	10.2
Styrene	2.0	U	2.0	0.44	ppb v/v			06/23/16 04:12	10.2
Bromoform	2.0	U	2.0	0.57	ppb v/v			06/23/16 04:12	10.2
Cumene	2.0	U	2.0	0.31	ppb v/v			06/23/16 04:12	10.2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
n-Propylbenzene	2.0	U	2.0	0.44	ppb v/v			06/23/16 04:12	10.2
4-Ethyltoluene	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
1,3,5-Trimethylbenzene	2.0	U	2.0	0.40	ppb v/v			06/23/16 04:12	10.2
2-Chlorotoluene	2.0	U	2.0	0.34	ppb v/v			06/23/16 04:12	10.2
tert-Butylbenzene	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
1,2,4-Trimethylbenzene	2.0	U	2.0	0.44	ppb v/v			06/23/16 04:12	10.2
sec-Butylbenzene	2.0	U	2.0	0.45	ppb v/v			06/23/16 04:12	10.2
4-Isopropyltoluene	2.0	U	2.0	0.38	ppb v/v			06/23/16 04:12	10.2
1,3-Dichlorobenzene	2.0	U	2.0	0.56	ppb v/v			06/23/16 04:12	10.2
1,4-Dichlorobenzene	2.0	U	2.0	0.58	ppb v/v			06/23/16 04:12	10.2
Benzyl chloride	2.0	U	2.0	0.54	ppb v/v			06/23/16 04:12	10.2
n-Butylbenzene	2.0	U	2.0	0.48	ppb v/v			06/23/16 04:12	10.2
1,2-Dichlorobenzene	2.0	U	2.0	0.56	ppb v/v			06/23/16 04:12	10.2
1,2,4-Trichlorobenzene	5.1	U	5.1	0.69	ppb v/v			06/23/16 04:12	10.2
Hexachlorobutadiene	2.0	U	2.0	0.84	ppb v/v			06/23/16 04:12	10.2
Naphthalene	5.1	U	5.1	0.58	ppb v/v			06/23/16 04:12	10.2
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25	4.0	ug/m3			06/23/16 04:12	10.2
Freon 22	36		18	2.1	ug/m3			06/23/16 04:12	10.2
1,2-Dichlorotetrafluoroethane	14	U	14	2.7	ug/m3			06/23/16 04:12	10.2
Chloromethane	11	U	11	2.0	ug/m3			06/23/16 04:12	10.2
n-Butane	280		12	1.9	ug/m3			06/23/16 04:12	10.2
Vinyl chloride	3.3	J	5.2	0.83	ug/m3			06/23/16 04:12	10.2
1,3-Butadiene	4.5	U	4.5	2.0	ug/m3			06/23/16 04:12	10.2
Bromomethane	7.9	U	7.9	2.2	ug/m3			06/23/16 04:12	10.2
Chloroethane	13	U	13	2.3	ug/m3			06/23/16 04:12	10.2

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-3

Lab Sample ID: 200-34029-2

Date Collected: 06/14/16 12:40

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoethene(Vinyl Bromide)	8.9	U	8.9	2.0	ug/m3			06/23/16 04:12	10.2
Trichlorofluoromethane	11	U	11	2.2	ug/m3			06/23/16 04:12	10.2
Freon TF	16	U	16	5.9	ug/m3			06/23/16 04:12	10.2
1,1-Dichloroethene	120		8.1	1.5	ug/m3			06/23/16 04:12	10.2
Acetone	380		120	21	ug/m3			06/23/16 04:12	10.2
Isopropyl alcohol	52	J	130	25	ug/m3			06/23/16 04:12	10.2
Carbon disulfide	8.0	J	16	1.4	ug/m3			06/23/16 04:12	10.2
3-Chloropropene	16	U	16	2.2	ug/m3			06/23/16 04:12	10.2
Methylene Chloride	18	U	18	6.4	ug/m3			06/23/16 04:12	10.2
tert-Butyl alcohol	150	U	150	26	ug/m3			06/23/16 04:12	10.2
Methyl tert-butyl ether	7.4	U	7.4	3.3	ug/m3			06/23/16 04:12	10.2
trans-1,2-Dichloroethene	8.1	U	8.1	1.7	ug/m3			06/23/16 04:12	10.2
n-Hexane	180		7.2	1.9	ug/m3			06/23/16 04:12	10.2
1,1-Dichloroethane	1.9	J	8.3	1.0	ug/m3			06/23/16 04:12	10.2
Methyl Ethyl Ketone	15	J	15	1.6	ug/m3			06/23/16 04:12	10.2
cis-1,2-Dichloroethene	15		8.1	1.4	ug/m3			06/23/16 04:12	10.2
1,2-Dichloroethene, Total	15	J	16	1.4	ug/m3			06/23/16 04:12	10.2
Chloroform	10	U	10	4.1	ug/m3			06/23/16 04:12	10.2
Tetrahydrofuran	150	U	150	42	ug/m3			06/23/16 04:12	10.2
1,1,1-Trichloroethane	11	U	11	2.6	ug/m3			06/23/16 04:12	10.2
Cyclohexane	6.4	J	7.0	1.4	ug/m3			06/23/16 04:12	10.2
Carbon tetrachloride	13	U	13	2.1	ug/m3			06/23/16 04:12	10.2
2,2,4-Trimethylpentane	9.5	U	9.5	1.9	ug/m3			06/23/16 04:12	10.2
Benzene	1.8	J	6.5	1.4	ug/m3			06/23/16 04:12	10.2
1,2-Dichloroethane	8.3	U	8.3	1.7	ug/m3			06/23/16 04:12	10.2
n-Heptane	8.4	U	8.4	1.7	ug/m3			06/23/16 04:12	10.2
Trichloroethene	110		11	2.1	ug/m3			06/23/16 04:12	10.2
Methyl methacrylate	21	U	21	1.7	ug/m3			06/23/16 04:12	10.2
1,2-Dichloropropane	9.4	U	9.4	1.3	ug/m3			06/23/16 04:12	10.2
1,4-Dioxane	180	U	180	21	ug/m3			06/23/16 04:12	10.2
Bromodichloromethane	14	U	14	2.1	ug/m3			06/23/16 04:12	10.2
cis-1,3-Dichloropropene	9.3	U	9.3	1.1	ug/m3			06/23/16 04:12	10.2
methyl isobutyl ketone	21	U	21	2.1	ug/m3			06/23/16 04:12	10.2
Toluene	7.7	U	7.7	3.6	ug/m3			06/23/16 04:12	10.2
trans-1,3-Dichloropropene	9.3	U	9.3	1.6	ug/m3			06/23/16 04:12	10.2
1,1,2-Trichloroethane	11	U	11	2.2	ug/m3			06/23/16 04:12	10.2
Tetrachloroethene	14	U	14	1.6	ug/m3			06/23/16 04:12	10.2
Methyl Butyl Ketone (2-Hexanone)	21	U	21	2.4	ug/m3			06/23/16 04:12	10.2
Dibromochloromethane	17	U	17	3.8	ug/m3			06/23/16 04:12	10.2
1,2-Dibromoethane	16	U	16	3.1	ug/m3			06/23/16 04:12	10.2
Chlorobenzene	9.4	U	9.4	2.3	ug/m3			06/23/16 04:12	10.2
Ethylbenzene	8.9	U	8.9	1.5	ug/m3			06/23/16 04:12	10.2
m,p-Xylene	22	U	22	3.1	ug/m3			06/23/16 04:12	10.2
Xylene, o-	8.9	U	8.9	1.6	ug/m3			06/23/16 04:12	10.2
Xylene (total)	31	U	31	1.6	ug/m3			06/23/16 04:12	10.2
Styrene	8.7	U	8.7	1.9	ug/m3			06/23/16 04:12	10.2
Bromoform	21	U	21	5.9	ug/m3			06/23/16 04:12	10.2
Cumene	10	U	10	1.5	ug/m3			06/23/16 04:12	10.2

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-3

Date Collected: 06/14/16 12:40

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Lab Sample ID: 200-34029-2

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	14	U	14	3.1	ug/m3			06/23/16 04:12	10.2
n-Propylbenzene	10	U	10	2.2	ug/m3			06/23/16 04:12	10.2
4-Ethyltoluene	10	U	10	2.2	ug/m3			06/23/16 04:12	10.2
1,3,5-Trimethylbenzene	10	U	10	2.0	ug/m3			06/23/16 04:12	10.2
2-Chlorotoluene	11	U	11	1.7	ug/m3			06/23/16 04:12	10.2
tert-Butylbenzene	11	U	11	2.5	ug/m3			06/23/16 04:12	10.2
1,2,4-Trimethylbenzene	10	U	10	2.2	ug/m3			06/23/16 04:12	10.2
sec-Butylbenzene	11	U	11	2.5	ug/m3			06/23/16 04:12	10.2
4-Isopropyltoluene	11	U	11	2.1	ug/m3			06/23/16 04:12	10.2
1,3-Dichlorobenzene	12	U	12	3.4	ug/m3			06/23/16 04:12	10.2
1,4-Dichlorobenzene	12	U	12	3.5	ug/m3			06/23/16 04:12	10.2
Benzyl chloride	11	U	11	2.8	ug/m3			06/23/16 04:12	10.2
n-Butylbenzene	11	U	11	2.6	ug/m3			06/23/16 04:12	10.2
1,2-Dichlorobenzene	12	U	12	3.4	ug/m3			06/23/16 04:12	10.2
1,2,4-Trichlorobenzene	38	U	38	5.1	ug/m3			06/23/16 04:12	10.2
Hexachlorobutadiene	22	U	22	8.9	ug/m3			06/23/16 04:12	10.2
Naphthalene	27	U	27	3.0	ug/m3			06/23/16 04:12	10.2

Client Sample ID: SVE-4

Date Collected: 06/14/16 14:30

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Lab Sample ID: 200-34029-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	17	U	17	2.8	ppb v/v			06/23/16 05:05	34.6
Freon 22	5.8	J	17	2.0	ppb v/v			06/23/16 05:05	34.6
1,2-Dichlorotetrafluoroethane	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Chloromethane	17	U	17	3.2	ppb v/v			06/23/16 05:05	34.6
n-Butane	20		17	2.7	ppb v/v			06/23/16 05:05	34.6
Vinyl chloride	6.9	U	6.9	1.1	ppb v/v			06/23/16 05:05	34.6
1,3-Butadiene	6.9	U	6.9	3.1	ppb v/v			06/23/16 05:05	34.6
Bromomethane	6.9	U	6.9	1.9	ppb v/v			06/23/16 05:05	34.6
Chloroethane	17	U	17	2.9	ppb v/v			06/23/16 05:05	34.6
Bromoethene(Vinyl Bromide)	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
Trichlorofluoromethane	14		6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Freon TF	20		6.9	2.6	ppb v/v			06/23/16 05:05	34.6
1,1-Dichloroethene	360		6.9	1.2	ppb v/v			06/23/16 05:05	34.6
Acetone	170	U	170	30	ppb v/v			06/23/16 05:05	34.6
Isopropyl alcohol	170	U	170	34	ppb v/v			06/23/16 05:05	34.6
Carbon disulfide	17	U	17	1.5	ppb v/v			06/23/16 05:05	34.6
3-Chloropropene	17	U	17	2.4	ppb v/v			06/23/16 05:05	34.6
Methylene Chloride	17	U	17	6.2	ppb v/v			06/23/16 05:05	34.6
tert-Butyl alcohol	170	U	170	29	ppb v/v			06/23/16 05:05	34.6
Methyl tert-butyl ether	6.9	U	6.9	3.1	ppb v/v			06/23/16 05:05	34.6
trans-1,2-Dichloroethene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
n-Hexane	27		6.9	1.9	ppb v/v			06/23/16 05:05	34.6
1,1-Dichloroethane	13		6.9	0.87	ppb v/v			06/23/16 05:05	34.6
Methyl Ethyl Ketone	17	U	17	1.8	ppb v/v			06/23/16 05:05	34.6

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-4

Lab Sample ID: 200-34029-3

Date Collected: 06/14/16 14:30

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	6.9	U	6.9	1.2	ppb v/v			06/23/16 05:05	34.6
1,2-Dichloroethene, Total	14	U	14	1.2	ppb v/v			06/23/16 05:05	34.6
Chloroform	6.9	U	6.9	2.8	ppb v/v			06/23/16 05:05	34.6
Tetrahydrofuran	180		170	48	ppb v/v			06/23/16 05:05	34.6
1,1,1-Trichloroethane	8.0		6.9	1.6	ppb v/v			06/23/16 05:05	34.6
Cyclohexane	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Carbon tetrachloride	6.9	U	6.9	1.1	ppb v/v			06/23/16 05:05	34.6
2,2,4-Trimethylpentane	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Benzene	2.4	J	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
1,2-Dichloroethane	6.9	U	6.9	1.4	ppb v/v			06/23/16 05:05	34.6
n-Heptane	3.2	J	6.9	1.4	ppb v/v			06/23/16 05:05	34.6
Trichloroethene	860		6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Methyl methacrylate	17	U	17	1.4	ppb v/v			06/23/16 05:05	34.6
1,2-Dichloropropane	6.9	U	6.9	0.93	ppb v/v			06/23/16 05:05	34.6
1,4-Dioxane	170	U	170	19	ppb v/v			06/23/16 05:05	34.6
Bromodichloromethane	6.9	U	6.9	1.0	ppb v/v			06/23/16 05:05	34.6
cis-1,3-Dichloropropene	6.9	U	6.9	0.80	ppb v/v			06/23/16 05:05	34.6
methyl isobutyl ketone	17	U	17	1.7	ppb v/v			06/23/16 05:05	34.6
Toluene	20		6.9	3.2	ppb v/v			06/23/16 05:05	34.6
trans-1,3-Dichloropropene	6.9	U	6.9	1.2	ppb v/v			06/23/16 05:05	34.6
1,1,2-Trichloroethane	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Tetrachloroethene	1.7	J	6.9	0.80	ppb v/v			06/23/16 05:05	34.6
Methyl Butyl Ketone (2-Hexanone)	17	U	17	2.0	ppb v/v			06/23/16 05:05	34.6
Dibromochloromethane	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
1,2-Dibromoethane	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Chlorobenzene	6.9	U	6.9	1.7	ppb v/v			06/23/16 05:05	34.6
Ethylbenzene	3.0	J	6.9	1.1	ppb v/v			06/23/16 05:05	34.6
m,p-Xylene	10	J	17	2.5	ppb v/v			06/23/16 05:05	34.6
Xylene, o-	3.8	J	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
Xylene (total)	14	J	24	1.3	ppb v/v			06/23/16 05:05	34.6
Styrene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
Bromoform	6.9	U	6.9	1.9	ppb v/v			06/23/16 05:05	34.6
Cumene	3.4	J	6.9	1.0	ppb v/v			06/23/16 05:05	34.6
1,1,2,2-Tetrachloroethane	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
n-Propylbenzene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
4-Ethyltoluene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
1,3,5-Trimethylbenzene	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
2-Chlorotoluene	6.9	U	6.9	1.1	ppb v/v			06/23/16 05:05	34.6
tert-Butylbenzene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
1,2,4-Trimethylbenzene	3.2	J	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
sec-Butylbenzene	6.9	U	6.9	1.5	ppb v/v			06/23/16 05:05	34.6
4-Isopropyltoluene	6.9	U	6.9	1.3	ppb v/v			06/23/16 05:05	34.6
1,3-Dichlorobenzene	6.9	U	6.9	1.9	ppb v/v			06/23/16 05:05	34.6
1,4-Dichlorobenzene	6.9	U	6.9	2.0	ppb v/v			06/23/16 05:05	34.6
Benzyl chloride	6.9	U	6.9	1.8	ppb v/v			06/23/16 05:05	34.6
n-Butylbenzene	6.9	U	6.9	1.6	ppb v/v			06/23/16 05:05	34.6
1,2-Dichlorobenzene	6.9	U	6.9	1.9	ppb v/v			06/23/16 05:05	34.6
1,2,4-Trichlorobenzene	17	U	17	2.4	ppb v/v			06/23/16 05:05	34.6

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-4

Lab Sample ID: 200-34029-3

Date Collected: 06/14/16 14:30

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	6.9	U	6.9	2.8	ppb v/v			06/23/16 05:05	34.6
Naphthalene	17	U	17	2.0	ppb v/v			06/23/16 05:05	34.6
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	86	U	86	14	ug/m3			06/23/16 05:05	34.6
Freon 22	20	J	61	7.0	ug/m3			06/23/16 05:05	34.6
1,2-Dichlorotetrafluoroethane	48	U	48	9.2	ug/m3			06/23/16 05:05	34.6
Chloromethane	36	U	36	6.6	ug/m3			06/23/16 05:05	34.6
n-Butane	46		41	6.4	ug/m3			06/23/16 05:05	34.6
Vinyl chloride	18	U	18	2.8	ug/m3			06/23/16 05:05	34.6
1,3-Butadiene	15	U	15	6.8	ug/m3			06/23/16 05:05	34.6
Bromomethane	27	U	27	7.5	ug/m3			06/23/16 05:05	34.6
Chloroethane	46	U	46	7.8	ug/m3			06/23/16 05:05	34.6
Bromoethene(Vinyl Bromide)	30	U	30	6.7	ug/m3			06/23/16 05:05	34.6
Trichlorofluoromethane	80		39	7.4	ug/m3			06/23/16 05:05	34.6
Freon TF	150		53	20	ug/m3			06/23/16 05:05	34.6
1,1-Dichloroethene	1400		27	4.9	ug/m3			06/23/16 05:05	34.6
Acetone	410	U	410	71	ug/m3			06/23/16 05:05	34.6
Isopropyl alcohol	430	U	430	83	ug/m3			06/23/16 05:05	34.6
Carbon disulfide	54	U	54	4.6	ug/m3			06/23/16 05:05	34.6
3-Chloropropene	54	U	54	7.4	ug/m3			06/23/16 05:05	34.6
Methylene Chloride	60	U	60	22	ug/m3			06/23/16 05:05	34.6
tert-Butyl alcohol	520	U	520	89	ug/m3			06/23/16 05:05	34.6
Methyl tert-butyl ether	25	U	25	11	ug/m3			06/23/16 05:05	34.6
trans-1,2-Dichloroethene	27	U	27	5.9	ug/m3			06/23/16 05:05	34.6
n-Hexane	95		24	6.6	ug/m3			06/23/16 05:05	34.6
1,1-Dichloroethane	54		28	3.5	ug/m3			06/23/16 05:05	34.6
Methyl Ethyl Ketone	51	U	51	5.3	ug/m3			06/23/16 05:05	34.6
cis-1,2-Dichloroethene	27	U	27	4.8	ug/m3			06/23/16 05:05	34.6
1,2-Dichloroethene, Total	55	U	55	4.8	ug/m3			06/23/16 05:05	34.6
Chloroform	34	U	34	14	ug/m3			06/23/16 05:05	34.6
Tetrahydrofuran	530		510	140	ug/m3			06/23/16 05:05	34.6
1,1,1-Trichloroethane	44		38	8.7	ug/m3			06/23/16 05:05	34.6
Cyclohexane	24	U	24	4.6	ug/m3			06/23/16 05:05	34.6
Carbon tetrachloride	44	U	44	7.0	ug/m3			06/23/16 05:05	34.6
2,2,4-Trimethylpentane	32	U	32	6.3	ug/m3			06/23/16 05:05	34.6
Benzene	7.8	J	22	4.6	ug/m3			06/23/16 05:05	34.6
1,2-Dichloroethane	28	U	28	5.7	ug/m3			06/23/16 05:05	34.6
n-Heptane	13	J	28	5.7	ug/m3			06/23/16 05:05	34.6
Trichloroethene	4600		37	7.3	ug/m3			06/23/16 05:05	34.6
Methyl methacrylate	71	U	71	5.7	ug/m3			06/23/16 05:05	34.6
1,2-Dichloropropane	32	U	32	4.3	ug/m3			06/23/16 05:05	34.6
1,4-Dioxane	620	U	620	70	ug/m3			06/23/16 05:05	34.6
Bromodichloromethane	46	U	46	7.0	ug/m3			06/23/16 05:05	34.6
cis-1,3-Dichloropropene	31	U	31	3.6	ug/m3			06/23/16 05:05	34.6
methyl isobutyl ketone	71	U	71	7.1	ug/m3			06/23/16 05:05	34.6
Toluene	77		26	12	ug/m3			06/23/16 05:05	34.6
trans-1,3-Dichloropropene	31	U	31	5.3	ug/m3			06/23/16 05:05	34.6
1,1,2-Trichloroethane	38	U	38	7.4	ug/m3			06/23/16 05:05	34.6

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-4

Lab Sample ID: 200-34029-3

Date Collected: 06/14/16 14:30

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	11	J	47	5.4	ug/m3			06/23/16 05:05	34.6
Methyl Butyl Ketone (2-Hexanone)	71	U	71	8.1	ug/m3			06/23/16 05:05	34.6
Dibromochloromethane	59	U	59	13	ug/m3			06/23/16 05:05	34.6
1,2-Dibromoethane	53	U	53	10	ug/m3			06/23/16 05:05	34.6
Chlorobenzene	32	U	32	7.8	ug/m3			06/23/16 05:05	34.6
Ethylbenzene	13	J	30	5.0	ug/m3			06/23/16 05:05	34.6
m,p-Xylene	45	J	75	11	ug/m3			06/23/16 05:05	34.6
Xylene, o-	17	J	30	5.6	ug/m3			06/23/16 05:05	34.6
Xylene (total)	60	J	110	5.6	ug/m3			06/23/16 05:05	34.6
Styrene	29	U	29	6.3	ug/m3			06/23/16 05:05	34.6
Bromoform	72	U	72	20	ug/m3			06/23/16 05:05	34.6
Cumene	17	J	34	5.1	ug/m3			06/23/16 05:05	34.6
1,1,2,2-Tetrachloroethane	48	U	48	10	ug/m3			06/23/16 05:05	34.6
n-Propylbenzene	34	U	34	7.3	ug/m3			06/23/16 05:05	34.6
4-Ethyltoluene	34	U	34	7.5	ug/m3			06/23/16 05:05	34.6
1,3,5-Trimethylbenzene	34	U	34	6.6	ug/m3			06/23/16 05:05	34.6
2-Chlorotoluene	36	U	36	5.9	ug/m3			06/23/16 05:05	34.6
tert-Butylbenzene	38	U	38	8.4	ug/m3			06/23/16 05:05	34.6
1,2,4-Trimethylbenzene	16	J	34	7.3	ug/m3			06/23/16 05:05	34.6
sec-Butylbenzene	38	U	38	8.4	ug/m3			06/23/16 05:05	34.6
4-Isopropyltoluene	38	U	38	7.0	ug/m3			06/23/16 05:05	34.6
1,3-Dichlorobenzene	42	U	42	11	ug/m3			06/23/16 05:05	34.6
1,4-Dichlorobenzene	42	U	42	12	ug/m3			06/23/16 05:05	34.6
Benzyl chloride	36	U	36	9.5	ug/m3			06/23/16 05:05	34.6
n-Butylbenzene	38	U	38	8.9	ug/m3			06/23/16 05:05	34.6
1,2-Dichlorobenzene	42	U	42	11	ug/m3			06/23/16 05:05	34.6
1,2,4-Trichlorobenzene	130	U	130	17	ug/m3			06/23/16 05:05	34.6
Hexachlorobutadiene	74	U	74	30	ug/m3			06/23/16 05:05	34.6
Naphthalene	91	U	91	10	ug/m3			06/23/16 05:05	34.6

Client Sample ID: SVE-2

Lab Sample ID: 200-34029-4

Date Collected: 06/14/16 15:50

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	7100	U	7100	1100	ppb v/v			06/23/16 08:55	14200
Freon 22	7100	U	7100	810	ppb v/v			06/23/16 08:55	14200
1,2-Dichlorotetrafluoroethane	2800	U	2800	540	ppb v/v			06/23/16 08:55	14200
Chloromethane	7100	U	7100	1300	ppb v/v			06/23/16 08:55	14200
n-Butane	7100	U	7100	1100	ppb v/v			06/23/16 08:55	14200
Vinyl chloride	2800	U	2800	450	ppb v/v			06/23/16 08:55	14200
1,3-Butadiene	2800	U	2800	1300	ppb v/v			06/23/16 08:55	14200
Bromomethane	2800	U	2800	800	ppb v/v			06/23/16 08:55	14200
Chloroethane	7100	U	7100	1200	ppb v/v			06/23/16 08:55	14200
Bromoethene(Vinyl Bromide)	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200
Trichlorofluoromethane	2800	U	2800	540	ppb v/v			06/23/16 08:55	14200
Freon TF	2800	U	2800	1100	ppb v/v			06/23/16 08:55	14200

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-2

Lab Sample ID: 200-34029-4

Date Collected: 06/14/16 15:50

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2100	J	2800	510	ppb v/v			06/23/16 08:55	14200
Acetone	71000	U	71000	12000	ppb v/v			06/23/16 08:55	14200
Isopropyl alcohol	71000	U	71000	14000	ppb v/v			06/23/16 08:55	14200
Carbon disulfide	7100	U	7100	610	ppb v/v			06/23/16 08:55	14200
3-Chloropropene	7100	U	7100	970	ppb v/v			06/23/16 08:55	14200
Methylene Chloride	7100	U	7100	2600	ppb v/v			06/23/16 08:55	14200
tert-Butyl alcohol	71000	U	71000	12000	ppb v/v			06/23/16 08:55	14200
Methyl tert-butyl ether	2800	U	2800	1300	ppb v/v			06/23/16 08:55	14200
trans-1,2-Dichloroethene	2800	U	2800	610	ppb v/v			06/23/16 08:55	14200
n-Hexane	2800	U	2800	770	ppb v/v			06/23/16 08:55	14200
1,1-Dichloroethane	1400	J	2800	360	ppb v/v			06/23/16 08:55	14200
Methyl Ethyl Ketone	7100	U	7100	740	ppb v/v			06/23/16 08:55	14200
cis-1,2-Dichloroethene	5600		2800	500	ppb v/v			06/23/16 08:55	14200
1,2-Dichloroethene, Total	5600	J	5700	500	ppb v/v			06/23/16 08:55	14200
Chloroform	2800	U	2800	1200	ppb v/v			06/23/16 08:55	14200
Tetrahydrofuran	71000	U	71000	20000	ppb v/v			06/23/16 08:55	14200
1,1,1-Trichloroethane	2800	U	2800	650	ppb v/v			06/23/16 08:55	14200
Cyclohexane	2800	U	2800	550	ppb v/v			06/23/16 08:55	14200
Carbon tetrachloride	2800	U	2800	450	ppb v/v			06/23/16 08:55	14200
2,2,4-Trimethylpentane	2800	U	2800	550	ppb v/v			06/23/16 08:55	14200
Benzene	2800	U	2800	600	ppb v/v			06/23/16 08:55	14200
1,2-Dichloroethane	2800	U	2800	580	ppb v/v			06/23/16 08:55	14200
n-Heptane	2800	U	2800	570	ppb v/v			06/23/16 08:55	14200
Trichloroethene	480000		2800	550	ppb v/v			06/23/16 08:55	14200
Methyl methacrylate	7100	U	7100	570	ppb v/v			06/23/16 08:55	14200
1,2-Dichloropropane	2800	U	2800	380	ppb v/v			06/23/16 08:55	14200
1,4-Dioxane	71000	U	71000	8000	ppb v/v			06/23/16 08:55	14200
Bromodichloromethane	2800	U	2800	430	ppb v/v			06/23/16 08:55	14200
cis-1,3-Dichloropropene	2800	U	2800	330	ppb v/v			06/23/16 08:55	14200
methyl isobutyl ketone	7100	U	7100	710	ppb v/v			06/23/16 08:55	14200
Toluene	2800	U	2800	1300	ppb v/v			06/23/16 08:55	14200
trans-1,3-Dichloropropene	2800	U	2800	480	ppb v/v			06/23/16 08:55	14200
1,1,2-Trichloroethane	2800	U	2800	550	ppb v/v			06/23/16 08:55	14200
Tetrachloroethene	2800	U	2800	330	ppb v/v			06/23/16 08:55	14200
Methyl Butyl Ketone (2-Hexanone)	7100	U	7100	810	ppb v/v			06/23/16 08:55	14200
Dibromochloromethane	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200
1,2-Dibromoethane	2800	U	2800	550	ppb v/v			06/23/16 08:55	14200
Chlorobenzene	2800	U	2800	700	ppb v/v			06/23/16 08:55	14200
Ethylbenzene	2800	U	2800	470	ppb v/v			06/23/16 08:55	14200
m,p-Xylene	7100	U	7100	1000	ppb v/v			06/23/16 08:55	14200
Xylene, o-	2800	U	2800	530	ppb v/v			06/23/16 08:55	14200
Xylene (total)	9900	U	9900	530	ppb v/v			06/23/16 08:55	14200
Styrene	2800	U	2800	610	ppb v/v			06/23/16 08:55	14200
Bromoform	2800	U	2800	800	ppb v/v			06/23/16 08:55	14200
Cumene	2800	U	2800	430	ppb v/v			06/23/16 08:55	14200
1,1,2,2-Tetrachloroethane	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200
n-Propylbenzene	2800	U	2800	610	ppb v/v			06/23/16 08:55	14200
4-Ethyltoluene	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-2

Lab Sample ID: 200-34029-4

Date Collected: 06/14/16 15:50

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	2800	U	2800	550	ppb v/v			06/23/16 08:55	14200
2-Chlorotoluene	2800	U	2800	470	ppb v/v			06/23/16 08:55	14200
tert-Butylbenzene	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200
1,2,4-Trimethylbenzene	2800	U	2800	610	ppb v/v			06/23/16 08:55	14200
sec-Butylbenzene	2800	U	2800	620	ppb v/v			06/23/16 08:55	14200
4-Isopropyltoluene	2800	U	2800	530	ppb v/v			06/23/16 08:55	14200
1,3-Dichlorobenzene	2800	U	2800	780	ppb v/v			06/23/16 08:55	14200
1,4-Dichlorobenzene	2800	U	2800	810	ppb v/v			06/23/16 08:55	14200
Benzyl chloride	2800	U	2800	750	ppb v/v			06/23/16 08:55	14200
n-Butylbenzene	2800	U	2800	670	ppb v/v			06/23/16 08:55	14200
1,2-Dichlorobenzene	2800	U	2800	780	ppb v/v			06/23/16 08:55	14200
1,2,4-Trichlorobenzene	7100	U	7100	970	ppb v/v			06/23/16 08:55	14200
Hexachlorobutadiene	2800	U	2800	1200	ppb v/v			06/23/16 08:55	14200
Naphthalene	7100	U	7100	810	ppb v/v			06/23/16 08:55	14200
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	35000	U	35000	5600	ug/m3			06/23/16 08:55	14200
Freon 22	25000	U	25000	2900	ug/m3			06/23/16 08:55	14200
1,2-Dichlorotetrafluoroethane	20000	U	20000	3800	ug/m3			06/23/16 08:55	14200
Chloromethane	15000	U	15000	2700	ug/m3			06/23/16 08:55	14200
n-Butane	17000	U	17000	2600	ug/m3			06/23/16 08:55	14200
Vinyl chloride	7300	U	7300	1200	ug/m3			06/23/16 08:55	14200
1,3-Butadiene	6300	U	6300	2800	ug/m3			06/23/16 08:55	14200
Bromomethane	11000	U	11000	3100	ug/m3			06/23/16 08:55	14200
Chloroethane	19000	U	19000	3200	ug/m3			06/23/16 08:55	14200
Bromoethene(Vinyl Bromide)	12000	U	12000	2700	ug/m3			06/23/16 08:55	14200
Trichlorofluoromethane	16000	U	16000	3000	ug/m3			06/23/16 08:55	14200
Freon TF	22000	U	22000	8200	ug/m3			06/23/16 08:55	14200
1,1-Dichloroethene	8300	J	11000	2000	ug/m3			06/23/16 08:55	14200
Acetone	170000	U	170000	29000	ug/m3			06/23/16 08:55	14200
Isopropyl alcohol	170000	U	170000	34000	ug/m3			06/23/16 08:55	14200
Carbon disulfide	22000	U	22000	1900	ug/m3			06/23/16 08:55	14200
3-Chloropropene	22000	U	22000	3000	ug/m3			06/23/16 08:55	14200
Methylene Chloride	25000	U	25000	8900	ug/m3			06/23/16 08:55	14200
tert-Butyl alcohol	220000	U	220000	37000	ug/m3			06/23/16 08:55	14200
Methyl tert-butyl ether	10000	U	10000	4600	ug/m3			06/23/16 08:55	14200
trans-1,2-Dichloroethene	11000	U	11000	2400	ug/m3			06/23/16 08:55	14200
n-Hexane	10000	U	10000	2700	ug/m3			06/23/16 08:55	14200
1,1-Dichloroethane	5800	J	11000	1400	ug/m3			06/23/16 08:55	14200
Methyl Ethyl Ketone	21000	U	21000	2200	ug/m3			06/23/16 08:55	14200
cis-1,2-Dichloroethene	22000		11000	2000	ug/m3			06/23/16 08:55	14200
1,2-Dichloroethene, Total	22000	J	23000	2000	ug/m3			06/23/16 08:55	14200
Chloroform	14000	U	14000	5700	ug/m3			06/23/16 08:55	14200
Tetrahydrofuran	210000	U	210000	59000	ug/m3			06/23/16 08:55	14200
1,1,1-Trichloroethane	15000	U	15000	3600	ug/m3			06/23/16 08:55	14200
Cyclohexane	9800	U	9800	1900	ug/m3			06/23/16 08:55	14200
Carbon tetrachloride	18000	U	18000	2900	ug/m3			06/23/16 08:55	14200
2,2,4-Trimethylpentane	13000	U	13000	2600	ug/m3			06/23/16 08:55	14200
Benzene	9100	U	9100	1900	ug/m3			06/23/16 08:55	14200

TestAmerica Burlington

Client Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-2

Lab Sample ID: 200-34029-4

Date Collected: 06/14/16 15:50

Matrix: Air

Date Received: 06/17/16 10:00

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	11000	U	11000	2400	ug/m3			06/23/16 08:55	14200
n-Heptane	12000	U	12000	2300	ug/m3			06/23/16 08:55	14200
Trichloroethene	2600000		15000	3000	ug/m3			06/23/16 08:55	14200
Methyl methacrylate	29000	U	29000	2300	ug/m3			06/23/16 08:55	14200
1,2-Dichloropropane	13000	U	13000	1800	ug/m3			06/23/16 08:55	14200
1,4-Dioxane	260000	U	260000	29000	ug/m3			06/23/16 08:55	14200
Bromodichloromethane	19000	U	19000	2900	ug/m3			06/23/16 08:55	14200
cis-1,3-Dichloropropene	13000	U	13000	1500	ug/m3			06/23/16 08:55	14200
methyl isobutyl ketone	29000	U	29000	2900	ug/m3			06/23/16 08:55	14200
Toluene	11000	U	11000	5000	ug/m3			06/23/16 08:55	14200
trans-1,3-Dichloropropene	13000	U	13000	2200	ug/m3			06/23/16 08:55	14200
1,1,2-Trichloroethane	15000	U	15000	3000	ug/m3			06/23/16 08:55	14200
Tetrachloroethene	19000	U	19000	2200	ug/m3			06/23/16 08:55	14200
Methyl Butyl Ketone (2-Hexanone)	29000	U	29000	3300	ug/m3			06/23/16 08:55	14200
Dibromochloromethane	24000	U	24000	5300	ug/m3			06/23/16 08:55	14200
1,2-Dibromoethane	22000	U	22000	4300	ug/m3			06/23/16 08:55	14200
Chlorobenzene	13000	U	13000	3200	ug/m3			06/23/16 08:55	14200
Ethylbenzene	12000	U	12000	2000	ug/m3			06/23/16 08:55	14200
m,p-Xylene	31000	U	31000	4400	ug/m3			06/23/16 08:55	14200
Xylene, o-	12000	U	12000	2300	ug/m3			06/23/16 08:55	14200
Xylene (total)	43000	U	43000	2300	ug/m3			06/23/16 08:55	14200
Styrene	12000	U	12000	2600	ug/m3			06/23/16 08:55	14200
Bromoform	29000	U	29000	8200	ug/m3			06/23/16 08:55	14200
Cumene	14000	U	14000	2100	ug/m3			06/23/16 08:55	14200
1,1,2,2-Tetrachloroethane	19000	U	19000	4300	ug/m3			06/23/16 08:55	14200
n-Propylbenzene	14000	U	14000	3000	ug/m3			06/23/16 08:55	14200
4-Ethyltoluene	14000	U	14000	3100	ug/m3			06/23/16 08:55	14200
1,3,5-Trimethylbenzene	14000	U	14000	2700	ug/m3			06/23/16 08:55	14200
2-Chlorotoluene	15000	U	15000	2400	ug/m3			06/23/16 08:55	14200
tert-Butylbenzene	16000	U	16000	3400	ug/m3			06/23/16 08:55	14200
1,2,4-Trimethylbenzene	14000	U	14000	3000	ug/m3			06/23/16 08:55	14200
sec-Butylbenzene	16000	U	16000	3400	ug/m3			06/23/16 08:55	14200
4-Isopropyltoluene	16000	U	16000	2900	ug/m3			06/23/16 08:55	14200
1,3-Dichlorobenzene	17000	U	17000	4700	ug/m3			06/23/16 08:55	14200
1,4-Dichlorobenzene	17000	U	17000	4900	ug/m3			06/23/16 08:55	14200
Benzyl chloride	15000	U	15000	3900	ug/m3			06/23/16 08:55	14200
n-Butylbenzene	16000	U	16000	3700	ug/m3			06/23/16 08:55	14200
1,2-Dichlorobenzene	17000	U	17000	4700	ug/m3			06/23/16 08:55	14200
1,2,4-Trichlorobenzene	53000	U	53000	7200	ug/m3			06/23/16 08:55	14200
Hexachlorobutadiene	30000	U	30000	12000	ug/m3			06/23/16 08:55	14200
Naphthalene	37000	U	37000	4200	ug/m3			06/23/16 08:55	14200

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-106040/4

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50	0.080	ppb v/v			06/22/16 12:28	1
Freon 22	0.50	U	0.50	0.057	ppb v/v			06/22/16 12:28	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.038	ppb v/v			06/22/16 12:28	1
Chloromethane	0.50	U	0.50	0.093	ppb v/v			06/22/16 12:28	1
n-Butane	0.50	U	0.50	0.078	ppb v/v			06/22/16 12:28	1
Vinyl chloride	0.20	U	0.20	0.032	ppb v/v			06/22/16 12:28	1
1,3-Butadiene	0.20	U	0.20	0.089	ppb v/v			06/22/16 12:28	1
Bromomethane	0.20	U	0.20	0.056	ppb v/v			06/22/16 12:28	1
Chloroethane	0.50	U	0.50	0.085	ppb v/v			06/22/16 12:28	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1
Trichlorofluoromethane	0.20	U	0.20	0.038	ppb v/v			06/22/16 12:28	1
Freon TF	0.20	U	0.20	0.075	ppb v/v			06/22/16 12:28	1
1,1-Dichloroethene	0.20	U	0.20	0.036	ppb v/v			06/22/16 12:28	1
Acetone	5.0	U	5.0	0.86	ppb v/v			06/22/16 12:28	1
Isopropyl alcohol	5.0	U	5.0	0.98	ppb v/v			06/22/16 12:28	1
Carbon disulfide	0.50	U	0.50	0.043	ppb v/v			06/22/16 12:28	1
3-Chloropropene	0.50	U	0.50	0.068	ppb v/v			06/22/16 12:28	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			06/22/16 12:28	1
tert-Butyl alcohol	5.0	U	5.0	0.85	ppb v/v			06/22/16 12:28	1
Methyl tert-butyl ether	0.20	U	0.20	0.089	ppb v/v			06/22/16 12:28	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.043	ppb v/v			06/22/16 12:28	1
n-Hexane	0.20	U	0.20	0.054	ppb v/v			06/22/16 12:28	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			06/22/16 12:28	1
Methyl Ethyl Ketone	0.50	U	0.50	0.052	ppb v/v			06/22/16 12:28	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.035	ppb v/v			06/22/16 12:28	1
1,2-Dichloroethene, Total	0.40	U	0.40	0.035	ppb v/v			06/22/16 12:28	1
Chloroform	0.20	U	0.20	0.082	ppb v/v			06/22/16 12:28	1
Tetrahydrofuran	5.0	U	5.0	1.4	ppb v/v			06/22/16 12:28	1
1,1,1-Trichloroethane	0.20	U	0.20	0.046	ppb v/v			06/22/16 12:28	1
Cyclohexane	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
Carbon tetrachloride	0.20	U	0.20	0.032	ppb v/v			06/22/16 12:28	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
Benzene	0.20	U	0.20	0.042	ppb v/v			06/22/16 12:28	1
1,2-Dichloroethane	0.20	U	0.20	0.041	ppb v/v			06/22/16 12:28	1
n-Heptane	0.20	U	0.20	0.040	ppb v/v			06/22/16 12:28	1
Trichloroethene	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
Methyl methacrylate	0.50	U	0.50	0.040	ppb v/v			06/22/16 12:28	1
1,2-Dichloropropane	0.20	U	0.20	0.027	ppb v/v			06/22/16 12:28	1
1,4-Dioxane	5.0	U	5.0	0.56	ppb v/v			06/22/16 12:28	1
Bromodichloromethane	0.20	U	0.20	0.030	ppb v/v			06/22/16 12:28	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.023	ppb v/v			06/22/16 12:28	1
methyl isobutyl ketone	0.50	U	0.50	0.050	ppb v/v			06/22/16 12:28	1
Toluene	0.20	U	0.20	0.093	ppb v/v			06/22/16 12:28	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.034	ppb v/v			06/22/16 12:28	1
1,1,2-Trichloroethane	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
Tetrachloroethene	0.20	U	0.20	0.023	ppb v/v			06/22/16 12:28	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.057	ppb v/v			06/22/16 12:28	1
Dibromochloromethane	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-106040/4

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
Chlorobenzene	0.20	U	0.20	0.049	ppb v/v			06/22/16 12:28	1
Ethylbenzene	0.20	U	0.20	0.033	ppb v/v			06/22/16 12:28	1
m,p-Xylene	0.50	U	0.50	0.071	ppb v/v			06/22/16 12:28	1
Xylene, o-	0.20	U	0.20	0.037	ppb v/v			06/22/16 12:28	1
Xylene (total)	0.70	U	0.70	0.037	ppb v/v			06/22/16 12:28	1
Styrene	0.20	U	0.20	0.043	ppb v/v			06/22/16 12:28	1
Bromoform	0.20	U	0.20	0.056	ppb v/v			06/22/16 12:28	1
Cumene	0.20	U	0.20	0.030	ppb v/v			06/22/16 12:28	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1
n-Propylbenzene	0.20	U	0.20	0.043	ppb v/v			06/22/16 12:28	1
4-Ethyltoluene	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.039	ppb v/v			06/22/16 12:28	1
2-Chlorotoluene	0.20	U	0.20	0.033	ppb v/v			06/22/16 12:28	1
tert-Butylbenzene	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.043	ppb v/v			06/22/16 12:28	1
sec-Butylbenzene	0.20	U	0.20	0.044	ppb v/v			06/22/16 12:28	1
4-Isopropyltoluene	0.20	U	0.20	0.037	ppb v/v			06/22/16 12:28	1
1,3-Dichlorobenzene	0.20	U	0.20	0.055	ppb v/v			06/22/16 12:28	1
1,4-Dichlorobenzene	0.20	U	0.20	0.057	ppb v/v			06/22/16 12:28	1
Benzyl chloride	0.20	U	0.20	0.053	ppb v/v			06/22/16 12:28	1
n-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			06/22/16 12:28	1
1,2-Dichlorobenzene	0.20	U	0.20	0.055	ppb v/v			06/22/16 12:28	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.068	ppb v/v			06/22/16 12:28	1
Hexachlorobutadiene	0.20	U	0.20	0.082	ppb v/v			06/22/16 12:28	1
Naphthalene	0.50	U	0.50	0.057	ppb v/v			06/22/16 12:28	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5	0.40	ug/m3			06/22/16 12:28	1
Freon 22	1.8	U	1.8	0.20	ug/m3			06/22/16 12:28	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.27	ug/m3			06/22/16 12:28	1
Chloromethane	1.0	U	1.0	0.19	ug/m3			06/22/16 12:28	1
n-Butane	1.2	U	1.2	0.19	ug/m3			06/22/16 12:28	1
Vinyl chloride	0.51	U	0.51	0.082	ug/m3			06/22/16 12:28	1
1,3-Butadiene	0.44	U	0.44	0.20	ug/m3			06/22/16 12:28	1
Bromomethane	0.78	U	0.78	0.22	ug/m3			06/22/16 12:28	1
Chloroethane	1.3	U	1.3	0.22	ug/m3			06/22/16 12:28	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.19	ug/m3			06/22/16 12:28	1
Trichlorofluoromethane	1.1	U	1.1	0.21	ug/m3			06/22/16 12:28	1
Freon TF	1.5	U	1.5	0.57	ug/m3			06/22/16 12:28	1
1,1-Dichloroethene	0.79	U	0.79	0.14	ug/m3			06/22/16 12:28	1
Acetone	12	U	12	2.0	ug/m3			06/22/16 12:28	1
Isopropyl alcohol	12	U	12	2.4	ug/m3			06/22/16 12:28	1
Carbon disulfide	1.6	U	1.6	0.13	ug/m3			06/22/16 12:28	1
3-Chloropropene	1.6	U	1.6	0.21	ug/m3			06/22/16 12:28	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			06/22/16 12:28	1
tert-Butyl alcohol	15	U	15	2.6	ug/m3			06/22/16 12:28	1
Methyl tert-butyl ether	0.72	U	0.72	0.32	ug/m3			06/22/16 12:28	1

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-106040/4

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.79	U	0.79	0.17	ug/m3			06/22/16 12:28	1
n-Hexane	0.70	U	0.70	0.19	ug/m3			06/22/16 12:28	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			06/22/16 12:28	1
Methyl Ethyl Ketone	1.5	U	1.5	0.15	ug/m3			06/22/16 12:28	1
cis-1,2-Dichloroethene	0.79	U	0.79	0.14	ug/m3			06/22/16 12:28	1
1,2-Dichloroethene, Total	1.6	U	1.6	0.14	ug/m3			06/22/16 12:28	1
Chloroform	0.98	U	0.98	0.40	ug/m3			06/22/16 12:28	1
Tetrahydrofuran	15	U	15	4.1	ug/m3			06/22/16 12:28	1
1,1,1-Trichloroethane	1.1	U	1.1	0.25	ug/m3			06/22/16 12:28	1
Cyclohexane	0.69	U	0.69	0.13	ug/m3			06/22/16 12:28	1
Carbon tetrachloride	1.3	U	1.3	0.20	ug/m3			06/22/16 12:28	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			06/22/16 12:28	1
Benzene	0.64	U	0.64	0.13	ug/m3			06/22/16 12:28	1
1,2-Dichloroethane	0.81	U	0.81	0.17	ug/m3			06/22/16 12:28	1
n-Heptane	0.82	U	0.82	0.16	ug/m3			06/22/16 12:28	1
Trichloroethene	1.1	U	1.1	0.21	ug/m3			06/22/16 12:28	1
Methyl methacrylate	2.0	U	2.0	0.16	ug/m3			06/22/16 12:28	1
1,2-Dichloropropane	0.92	U	0.92	0.12	ug/m3			06/22/16 12:28	1
1,4-Dioxane	18	U	18	2.0	ug/m3			06/22/16 12:28	1
Bromodichloromethane	1.3	U	1.3	0.20	ug/m3			06/22/16 12:28	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.10	ug/m3			06/22/16 12:28	1
methyl isobutyl ketone	2.0	U	2.0	0.20	ug/m3			06/22/16 12:28	1
Toluene	0.75	U	0.75	0.35	ug/m3			06/22/16 12:28	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.15	ug/m3			06/22/16 12:28	1
1,1,2-Trichloroethane	1.1	U	1.1	0.21	ug/m3			06/22/16 12:28	1
Tetrachloroethene	1.4	U	1.4	0.16	ug/m3			06/22/16 12:28	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.23	ug/m3			06/22/16 12:28	1
Dibromochloromethane	1.7	U	1.7	0.37	ug/m3			06/22/16 12:28	1
1,2-Dibromoethane	1.5	U	1.5	0.30	ug/m3			06/22/16 12:28	1
Chlorobenzene	0.92	U	0.92	0.23	ug/m3			06/22/16 12:28	1
Ethylbenzene	0.87	U	0.87	0.14	ug/m3			06/22/16 12:28	1
m,p-Xylene	2.2	U	2.2	0.31	ug/m3			06/22/16 12:28	1
Xylene, o-	0.87	U	0.87	0.16	ug/m3			06/22/16 12:28	1
Xylene (total)	3.0	U	3.0	0.16	ug/m3			06/22/16 12:28	1
Styrene	0.85	U	0.85	0.18	ug/m3			06/22/16 12:28	1
Bromoform	2.1	U	2.1	0.58	ug/m3			06/22/16 12:28	1
Cumene	0.98	U	0.98	0.15	ug/m3			06/22/16 12:28	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			06/22/16 12:28	1
n-Propylbenzene	0.98	U	0.98	0.21	ug/m3			06/22/16 12:28	1
4-Ethyltoluene	0.98	U	0.98	0.22	ug/m3			06/22/16 12:28	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.19	ug/m3			06/22/16 12:28	1
2-Chlorotoluene	1.0	U	1.0	0.17	ug/m3			06/22/16 12:28	1
tert-Butylbenzene	1.1	U	1.1	0.24	ug/m3			06/22/16 12:28	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.21	ug/m3			06/22/16 12:28	1
sec-Butylbenzene	1.1	U	1.1	0.24	ug/m3			06/22/16 12:28	1
4-Isopropyltoluene	1.1	U	1.1	0.20	ug/m3			06/22/16 12:28	1
1,3-Dichlorobenzene	1.2	U	1.2	0.33	ug/m3			06/22/16 12:28	1
1,4-Dichlorobenzene	1.2	U	1.2	0.34	ug/m3			06/22/16 12:28	1

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-106040/4

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	1.0	U	1.0	0.27	ug/m3			06/22/16 12:28	1
n-Butylbenzene	1.1	U	1.1	0.26	ug/m3			06/22/16 12:28	1
1,2-Dichlorobenzene	1.2	U	1.2	0.33	ug/m3			06/22/16 12:28	1
1,2,4-Trichlorobenzene	3.7	U	3.7	0.50	ug/m3			06/22/16 12:28	1
Hexachlorobutadiene	2.1	U	2.1	0.87	ug/m3			06/22/16 12:28	1
Naphthalene	2.6	U	2.6	0.30	ug/m3			06/22/16 12:28	1

Lab Sample ID: LCS 200-106040/3

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	10.5		ppb v/v		105	68 - 128
Freon 22	10.0	11.0		ppb v/v		110	64 - 128
1,2-Dichlorotetrafluoroethane	10.0	11.8		ppb v/v		118	78 - 138
Chloromethane	10.0	10.5		ppb v/v		105	57 - 126
n-Butane	10.0	10.7		ppb v/v		107	56 - 130
Vinyl chloride	10.0	10.2		ppb v/v		102	62 - 125
1,3-Butadiene	10.0	10.3		ppb v/v		103	59 - 125
Bromomethane	10.0	10.6		ppb v/v		106	68 - 128
Chloroethane	10.0	10.6		ppb v/v		106	65 - 125
Bromoethene(Vinyl Bromide)	10.0	10.3		ppb v/v		103	67 - 127
Trichlorofluoromethane	10.0	10.4		ppb v/v		104	67 - 127
Freon TF	10.0	10.4		ppb v/v		104	68 - 128
1,1-Dichloroethene	10.0	10.2		ppb v/v		102	67 - 127
Acetone	10.0	11.4		ppb v/v		114	64 - 136
Isopropyl alcohol	10.0	10.4		ppb v/v		104	55 - 124
Carbon disulfide	10.0	12.1		ppb v/v		121	81 - 141
3-Chloropropene	10.0	10.8		ppb v/v		108	53 - 133
Methylene Chloride	10.0	10.3		ppb v/v		103	62 - 122
tert-Butyl alcohol	10.0	10.9		ppb v/v		109	64 - 124
Methyl tert-butyl ether	10.0	10.5		ppb v/v		105	67 - 127
trans-1,2-Dichloroethene	10.0	11.2		ppb v/v		112	72 - 132
n-Hexane	10.0	11.2		ppb v/v		112	71 - 131
1,1-Dichloroethane	10.0	10.5		ppb v/v		105	66 - 126
Methyl Ethyl Ketone	10.0	10.6		ppb v/v		106	62 - 122
cis-1,2-Dichloroethene	10.0	10.1		ppb v/v		101	67 - 127
Chloroform	10.0	10.4		ppb v/v		104	69 - 129
Tetrahydrofuran	10.0	11.2		ppb v/v		112	61 - 136
1,1,1-Trichloroethane	10.0	10.3		ppb v/v		103	70 - 130
Cyclohexane	10.0	10.5		ppb v/v		105	69 - 129
Carbon tetrachloride	10.0	10.4		ppb v/v		104	62 - 143
2,2,4-Trimethylpentane	10.0	10.3		ppb v/v		103	67 - 127
Benzene	10.0	10.2		ppb v/v		102	67 - 127
1,2-Dichloroethane	10.0	10.4		ppb v/v		104	67 - 132
n-Heptane	10.0	10.2		ppb v/v		102	62 - 130
Trichloroethene	10.0	9.91		ppb v/v		99	68 - 128
Methyl methacrylate	10.0	10.4		ppb v/v		104	70 - 130

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-106040/3

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	10.0	10.3		ppb v/v		103	67 - 127
1,4-Dioxane	10.0	10.6		ppb v/v		106	66 - 132
Bromodichloromethane	10.0	10.4		ppb v/v		104	69 - 129
cis-1,3-Dichloropropene	10.0	10.4		ppb v/v		104	70 - 130
methyl isobutyl ketone	10.0	10.5		ppb v/v		105	62 - 130
Toluene	10.0	9.83		ppb v/v		98	67 - 127
trans-1,3-Dichloropropene	10.0	10.4		ppb v/v		104	69 - 129
1,1,2-Trichloroethane	10.0	10.1		ppb v/v		101	69 - 129
Tetrachloroethene	10.0	9.38		ppb v/v		94	70 - 130
Methyl Butyl Ketone (2-Hexanone)	10.0	10.3		ppb v/v		103	61 - 127
Dibromochloromethane	10.0	10.5		ppb v/v		105	66 - 130
1,2-Dibromoethane	10.0	9.99		ppb v/v		100	70 - 130
Chlorobenzene	10.0	9.64		ppb v/v		96	68 - 128
Ethylbenzene	10.0	9.96		ppb v/v		100	68 - 128
m,p-Xylene	20.0	19.4		ppb v/v		97	68 - 128
Xylene, o-	10.0	9.66		ppb v/v		97	67 - 127
Styrene	10.0	9.63		ppb v/v		96	68 - 128
Bromoform	10.0	12.7		ppb v/v		127	34 - 170
Cumene	10.0	9.73		ppb v/v		97	67 - 127
1,1,2,2-Tetrachloroethane	10.0	10.4		ppb v/v		104	69 - 129
n-Propylbenzene	10.0	9.94		ppb v/v		99	67 - 127
4-Ethyltoluene	10.0	10.1		ppb v/v		101	69 - 129
1,3,5-Trimethylbenzene	10.0	9.78		ppb v/v		98	65 - 125
2-Chlorotoluene	10.0	9.78		ppb v/v		98	67 - 127
tert-Butylbenzene	10.0	9.67		ppb v/v		97	63 - 125
1,2,4-Trimethylbenzene	10.0	9.79		ppb v/v		98	65 - 125
sec-Butylbenzene	10.0	9.84		ppb v/v		98	66 - 126
4-Isopropyltoluene	10.0	9.82		ppb v/v		98	67 - 129
1,3-Dichlorobenzene	10.0	9.55		ppb v/v		96	67 - 127
1,4-Dichlorobenzene	10.0	9.37		ppb v/v		94	66 - 126
Benzyl chloride	10.0	9.18		ppb v/v		92	54 - 135
n-Butylbenzene	10.0	9.91		ppb v/v		99	67 - 127
1,2-Dichlorobenzene	10.0	9.58		ppb v/v		96	67 - 127
1,2,4-Trichlorobenzene	10.0	8.85		ppb v/v		89	59 - 126
Hexachlorobutadiene	10.0	9.76		ppb v/v		98	62 - 130
Naphthalene	10.0	8.27		ppb v/v		83	50 - 121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	52.1		ug/m3		105	68 - 128
Freon 22	35	38.9		ug/m3		110	64 - 128
1,2-Dichlorotetrafluoroethane	70	82.3		ug/m3		118	78 - 138
Chloromethane	21	21.6		ug/m3		105	57 - 126
n-Butane	24	25.4		ug/m3		107	56 - 130
Vinyl chloride	26	26.0		ug/m3		102	62 - 125
1,3-Butadiene	22	22.8		ug/m3		103	59 - 125
Bromomethane	39	41.2		ug/m3		106	68 - 128
Chloroethane	26	28.1		ug/m3		106	65 - 125

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-106040/3

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoethene(Vinyl Bromide)	44	45.2		ug/m3		103	67 - 127
Trichlorofluoromethane	56	58.5		ug/m3		104	67 - 127
Freon TF	77	79.7		ug/m3		104	68 - 128
1,1-Dichloroethene	40	40.5		ug/m3		102	67 - 127
Acetone	24	27.0		ug/m3		114	64 - 136
Isopropyl alcohol	25	25.5		ug/m3		104	55 - 124
Carbon disulfide	31	37.6		ug/m3		121	81 - 141
3-Chloropropene	31	33.8		ug/m3		108	53 - 133
Methylene Chloride	35	35.7		ug/m3		103	62 - 122
tert-Butyl alcohol	30	33.1		ug/m3		109	64 - 124
Methyl tert-butyl ether	36	37.8		ug/m3		105	67 - 127
trans-1,2-Dichloroethene	40	44.4		ug/m3		112	72 - 132
n-Hexane	35	39.4		ug/m3		112	71 - 131
1,1-Dichloroethane	40	42.7		ug/m3		105	66 - 126
Methyl Ethyl Ketone	29	31.4		ug/m3		106	62 - 122
cis-1,2-Dichloroethene	40	40.0		ug/m3		101	67 - 127
Chloroform	49	51.0		ug/m3		104	69 - 129
Tetrahydrofuran	29	32.9		ug/m3		112	61 - 136
1,1,1-Trichloroethane	55	56.1		ug/m3		103	70 - 130
Cyclohexane	34	36.1		ug/m3		105	69 - 129
Carbon tetrachloride	63	65.6		ug/m3		104	62 - 143
2,2,4-Trimethylpentane	47	48.3		ug/m3		103	67 - 127
Benzene	32	32.5		ug/m3		102	67 - 127
1,2-Dichloroethane	40	42.1		ug/m3		104	67 - 132
n-Heptane	41	41.8		ug/m3		102	62 - 130
Trichloroethene	54	53.3		ug/m3		99	68 - 128
Methyl methacrylate	41	42.6		ug/m3		104	70 - 130
1,2-Dichloropropane	46	47.4		ug/m3		103	67 - 127
1,4-Dioxane	36	38.2		ug/m3		106	66 - 132
Bromodichloromethane	67	69.8		ug/m3		104	69 - 129
cis-1,3-Dichloropropene	45	47.0		ug/m3		104	70 - 130
methyl isobutyl ketone	41	43.0		ug/m3		105	62 - 130
Toluene	38	37.0		ug/m3		98	67 - 127
trans-1,3-Dichloropropene	45	47.3		ug/m3		104	69 - 129
1,1,2-Trichloroethane	55	55.3		ug/m3		101	69 - 129
Tetrachloroethene	68	63.6		ug/m3		94	70 - 130
Methyl Butyl Ketone (2-Hexanone)	41	42.1		ug/m3		103	61 - 127
Dibromochloromethane	85	89.3		ug/m3		105	66 - 130
1,2-Dibromoethane	77	76.8		ug/m3		100	70 - 130
Chlorobenzene	46	44.4		ug/m3		96	68 - 128
Ethylbenzene	43	43.2		ug/m3		100	68 - 128
m,p-Xylene	87	84.4		ug/m3		97	68 - 128
Xylene, o-	43	41.9		ug/m3		97	67 - 127
Styrene	43	41.0		ug/m3		96	68 - 128
Bromoform	100	131		ug/m3		127	34 - 170
Cumene	49	47.8		ug/m3		97	67 - 127
1,1,2,2-Tetrachloroethane	69	71.5		ug/m3		104	69 - 129

TestAmerica Burlington

QC Sample Results

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-106040/3

Matrix: Air

Analysis Batch: 106040

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Propylbenzene	49	48.8		ug/m3		99	67 - 127
4-Ethyltoluene	49	49.6		ug/m3		101	69 - 129
1,3,5-Trimethylbenzene	49	48.1		ug/m3		98	65 - 125
2-Chlorotoluene	52	50.6		ug/m3		98	67 - 127
tert-Butylbenzene	55	53.1		ug/m3		97	63 - 125
1,2,4-Trimethylbenzene	49	48.2		ug/m3		98	65 - 125
sec-Butylbenzene	55	54.0		ug/m3		98	66 - 126
4-Isopropyltoluene	55	53.9		ug/m3		98	67 - 129
1,3-Dichlorobenzene	60	57.4		ug/m3		96	67 - 127
1,4-Dichlorobenzene	60	56.4		ug/m3		94	66 - 126
Benzyl chloride	52	47.5		ug/m3		92	54 - 135
n-Butylbenzene	55	54.4		ug/m3		99	67 - 127
1,2-Dichlorobenzene	60	57.6		ug/m3		96	67 - 127
1,2,4-Trichlorobenzene	74	65.7		ug/m3		89	59 - 126
Hexachlorobutadiene	110	104		ug/m3		98	62 - 130
Naphthalene	52	43.4		ug/m3		83	50 - 121

QC Association Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Air - GC/MS VOA

Analysis Batch: 106040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-34029-1	SVE-1	Total/NA	Air	TO-15	
200-34029-2	SVE-3	Total/NA	Air	TO-15	
200-34029-3	SVE-4	Total/NA	Air	TO-15	
200-34029-4	SVE-2	Total/NA	Air	TO-15	
LCS 200-106040/3	Lab Control Sample	Total/NA	Air	TO-15	
MB 200-106040/4	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Client Sample ID: SVE-1

Date Collected: 06/14/16 10:53

Date Received: 06/17/16 10:00

Lab Sample ID: 200-34029-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10.1	106040	06/23/16 03:20	GGG	TAL BUR

Client Sample ID: SVE-3

Date Collected: 06/14/16 12:40

Date Received: 06/17/16 10:00

Lab Sample ID: 200-34029-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10.2	106040	06/23/16 04:12	GGG	TAL BUR

Client Sample ID: SVE-4

Date Collected: 06/14/16 14:30

Date Received: 06/17/16 10:00

Lab Sample ID: 200-34029-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		34.6	106040	06/23/16 05:05	GGG	TAL BUR

Client Sample ID: SVE-2

Date Collected: 06/14/16 15:50

Date Received: 06/17/16 10:00

Lab Sample ID: 200-34029-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		14200	106040	06/23/16 08:55	GGG	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Certification Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Laboratory: TestAmerica Burlington

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0751	09-30-17
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-02-17
Florida	NELAP	4	E87467	06-30-16 *
L-A-B	DoD ELAP		L2336	02-26-17
Maine	State Program	1	VT00008	04-17-17
Minnesota	NELAP	5	050-999-436	12-31-16
New Hampshire	NELAP	1	2006	12-18-16
New Jersey	NELAP	2	VT972	06-30-17
New York	NELAP	2	10391	04-01-17 *
Pennsylvania	NELAP	3	68-00489	04-30-17
Rhode Island	State Program	1	LAO00298	12-30-16
US Fish & Wildlife	Federal		LE-058448-0	10-31-16
USDA	Federal		P330-11-00093	10-28-16
Vermont	State Program	1	VT-4000	12-31-16
Virginia	NELAP	3	460209	12-14-16

* Certification renewal pending - certification considered valid.

TestAmerica Burlington

Method Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: CDM Smith, Inc.
Project/Site: Cessna

TestAmerica Job ID: 200-34029-1
SDG: 200-34029-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-34029-1	SVE-1	Air	06/14/16 10:53	06/17/16 10:00
200-34029-2	SVE-3	Air	06/14/16 12:40	06/17/16 10:00
200-34029-3	SVE-4	Air	06/14/16 14:30	06/17/16 10:00
200-34029-4	SVE-2	Air	06/14/16 15:50	06/17/16 10:00

ORIGIN ID: TMAA (404) 720-1400
 NICK FULLER
 CDM SMITH
 3715 NORTHSIDE PKWY NW
 BLDG 300 SUITE 400
 ATLANTA, GA 30327
 UNITED STATES US

SHIP DATE: 15JUN16
 ACTWGT: 17.00 LB
 CAD: 5459592/INET3730

BILL SENDER

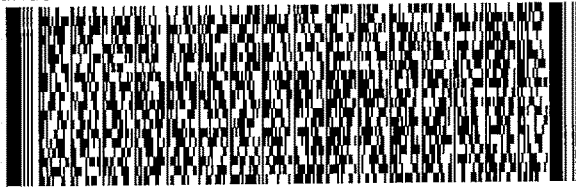
TO **SAMPLE RECEIVING**
TEST AMERICA BURLINGTON
30 COMMUNITY DR
STE 11
SOUTH BURLINGTON VT 05403

(802) 660-1990

REF: 1727-114167-TSK2.TESTS

INV:
 PO:

DEPT:



540.0230B0727F

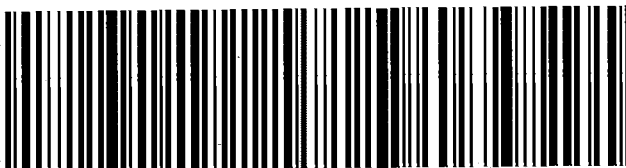
FRI - 17 JUN 4:30P

** 2DAY **

TRK# 7765 2568 8613
 0201

TC BTVA

05403
 VT-US BTV



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Login Sample Receipt Checklist

Client: CDM Smith, Inc.

Job Number: 200-34029-1

SDG Number: 200-34029-1

Login Number: 34029

List Number: 1

Creator: Lavigne, Scott M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	707994
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

200-33065-A-5

2984
Location: Air-Storage
Bottle: Summa Canister 1L
Sampled: 4/16/2016 12:00 AM 200-920770

Loc: 200

33065

#5

A

Pre-Shipment Clean Canister Certification Report

Certification Type: ☒ Batch ☐ Individual

Canister Cleaning & Pre-Shipment Leak Test									
System ID		# Cycles	Cleaning Date	Technician	Canister Size				
000002		25	4/16/16	ms	6L	1L	3L		
		Leak Test							
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Initial Reading	Final Reading		
1	3596	T	-30.0	-29.9	-0.1	Gauge ID: 619	Gauge ID: 619		
2	3579	T	-30.0		-0.1	Date: 4/16/16	Date: 4/20/16		
3	4954	T	-30.0		-0.1	Time: 11:00	Time: 12:00		
4	4842	T	-29.8		+0.1	Tech: ms	Tech: ms		
5	2984	-30.1				BP: 30.2 ("Hg)	BP: 30.0 ("Hg)		
6	5843	T	-30.0		-0.1	Temp 22 (°C)	Temp: 22 (°C)		
7	5931	T	-30.0		-0.1	³ Acceptance Criteria: (1) The difference must be less than or equal to + 0.5 (2) Pressure readings must be at least 24 hours apart. If time frame was not met, the PM must authorize shipment of canister: PM Authorization:			
8	5841	T	-29.9		0				
9									
10									
11									
12						Signature _____ Date _____			

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

²To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.

³To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

[illegible]

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLs listed in laboratory SOP for LLTO15.

Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.

Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.

Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLs listed in laboratory SOP NJDEP-LLTO15.

Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments: 0.2

200-33250-A-7

3359

Location: Air-Storage

Bottle: Summa Canister 1L

Sampled: 4/27/2016 12:00 AM 200-925180

Pre-Shipment Clean Canister Certification Report

Certification Type: ☒ Batch ☐ Individual

Canister Cleaning & Pre-Shipment Leak Test									
System ID		# Cycles		Cleaning Date		Technician		Canister Size	
OVEN2		100		4/27/16		←		6L	1L 3L
Leak Test									
Port	Can ID	Initial ¹ ("Hg)	Final ("Hg)	Adjusted Initial ² ("Hg)	Difference ³	Initial Reading		Final Reading	
						Gauge ID:		Gauge ID:	
1	5918	↑	-29.6	-29.6	0	Gauge ID:	6/9	Gauge ID:	6/9
2	5939	↑	-29.6		0	Date:	4/28/16	Date:	5/3/16
3	5493	↑	-29.5	-29.5	0	Time:	1050	Time:	1715
4	4852	↑	-29.6		0	Tech:	SM	Tech:	←
5	3583	↑	-29.4		40.2	BP:	29.8 ("Hg)	BP:	29.6 29.5 ("Hg)
6	4652	↑	-29.6		0	Temp	22 (°C)	Temp:	22 21 (°C)
7	3359	-29.8	-29.4	-29.5	+0.1	³ Acceptance Criteria: (1) The difference must be less than or equal to + 0.5 (2) Pressure readings must be at least 24 hours apart. If time frame was not met, the PM must authorize shipment of canister: PM Authorization: _____ _____ _____			
8	4646	↓	-29.6		0				
9									
10									
11									
12						Signature		Date	

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

²To calculate Adjusted Initial Pressure, subtract Final BP from Initial BP and add the result (positive or negative) to the initial pressure reading.

³To calculate Difference, subtract the Adjusted Initial Pressure from the Final Pressure (See Acceptance Criteria)

[illegible]

Inventory Level 1: Individual Canister Certification Only. Certified clean to RLs listed in laboratory SOP for LLTO15.

Inventory Level 2: Individual or Batch Certification. Certified clean to 0.04 ppbv.

Inventory Level 3: Individual or Batch Certification. Certified clean to 0.20 ppbv.

Inventory Level 4: Individual or Batch Certification. Certified clean following procedures and RLs listed in laboratory SOP NJDEP-LLTO15.

Inventory Level Limited Use: Canisters may only be used for certain projects.

Comments:

Pre-Shipment Clean Canister Certification Report

[illegible]

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).
Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).
Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).
Inventory Level 4: Individual or Batch Certification (TO15LLNJ 0.08 ppbv).
Inventory Level Limited: Canisters may only be used for certain projects.

Loc: 200
33378
#7
A

200-33378-A-7
5655
Location: Ali-Storage
Bottle: Summa Canister 1L
Sampled: 5/4/2016 12:00 AM
200-928199

FAI023:04.13.16:9
TestAmerica Burlington

200-928199

13
14
15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33065-1
 SDG No.: _____
 Client Sample ID: 2984 Lab Sample ID: 200-33065-5
 Matrix: Air Lab File ID: 19473_06.D
 Analysis Method: TO-15 Date Collected: 04/16/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/18/2016 15:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103329 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U *	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U *	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33065-1
 SDG No.: _____
 Client Sample ID: 2984 Lab Sample ID: 200-33065-5
 Matrix: Air Lab File ID: 19473_06.D
 Analysis Method: TO-15 Date Collected: 04/16/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/18/2016 15:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103329 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33065-1
 SDG No.: _____
 Client Sample ID: 2984 Lab Sample ID: 200-33065-5
 Matrix: Air Lab File ID: 19473_06.D
 Analysis Method: TO-15 Date Collected: 04/16/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/18/2016 15:27
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103329 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHC.i\20160418-19473.b\19473_06.D
 Lims ID: 200-33065-A-5
 Client ID: 2984
 Sample Type: Client
 Inject. Date: 18-Apr-2016 15:27:30 ALS Bottle#: 8 Worklist Smp#: 6
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0019473-006
 Misc. Info.: 33065-05
 Operator ID: pad Instrument ID: CHC.i
 Method: \\ChromNA\Burlington\ChromData\CHC.i\20160418-19473.b\TO15_MasterMethod_(v1)_CHC.i.m
 Limit Group: AI_TO15_ICAL
 Last Update: 19-Apr-2016 11:48:52 Calib Date: 04-Apr-2016 11:21:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHC.i\20160407-19261.b\19158_16.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: guazzonig

Date: 19-Apr-2016 09:41:11

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.991				ND	
2 Dichlorodifluoromethane	85		3.060				ND	
3 Chlorodifluoromethane	51		3.114				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		3.332				ND	
5 Chloromethane	50		3.471				ND	
6 Butane	43		3.674				ND	
7 Vinyl chloride	62		3.717				ND	
8 Butadiene	54		3.797				ND	
10 Bromomethane	94		4.490				ND	
11 Chloroethane	64		4.741				ND	
13 Vinyl bromide	106		5.136				ND	
14 Trichlorofluoromethane	101		5.248				ND	
17 Ethanol	45		5.862				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		6.358				ND	
21 1,1-Dichloroethene	96		6.390				ND	
22 Acetone	43		6.647				ND	
23 Carbon disulfide	76		6.775				ND	
24 Isopropyl alcohol	45		6.972				ND	
25 3-Chloro-1-propene	41		7.202				ND	
27 Methylene Chloride	49		7.506				ND	
28 2-Methyl-2-propanol	59		7.757				ND	
29 Methyl tert-butyl ether	73		7.911				ND	
31 trans-1,2-Dichloroethene	61		7.954				ND	
33 Hexane	57		8.349				ND	
34 1,1-Dichloroethane	63		8.845				ND	
35 Vinyl acetate	43		8.936				ND	
37 cis-1,2-Dichloroethene	96		9.977				ND	
38 2-Butanone (MEK)	72		10.030				ND	
39 Ethyl acetate	88		10.084				ND	
* 40 Chlorobromomethane	128	10.446	10.446	0.000	95	580035	10.0	
S 30 1,2-Dichloroethene, Total	61		10.200				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
41 Tetrahydrofuran	42		10.452				ND	
42 Chloroform	83		10.591				ND	
43 Cyclohexane	84		10.820				ND	
44 1,1,1-Trichloroethane	97		10.852				ND	
45 Carbon tetrachloride	117		11.108				ND	
46 Isooctane	57		11.556				ND	
47 Benzene	78		11.578				ND	
48 1,2-Dichloroethane	62		11.775				ND	
49 n-Heptane	43		11.962				ND	
* 50 1,4-Difluorobenzene	114	12.448	12.453	-0.005	97	3104443	10.0	
53 Trichloroethene	95		12.917				ND	
54 1,2-Dichloropropane	63		13.483				ND	
55 Methyl methacrylate	69		13.670				ND	
56 1,4-Dioxane	88		13.723				ND	
57 Dibromomethane	174		13.750				ND	
58 Dichlorobromomethane	83		14.059				ND	
60 cis-1,3-Dichloropropene	75		15.004				ND	
61 4-Methyl-2-pentanone (MIBK)	43		15.292				ND	
65 Toluene	92		15.591				ND	
66 trans-1,3-Dichloropropene	75		16.205				ND	
67 1,1,2-Trichloroethane	83		16.579				ND	
68 Tetrachloroethene	166		16.675				ND	
69 2-Hexanone	43		17.027				ND	
71 Chlorodibromomethane	129		17.336				ND	
72 Ethylene Dibromide	107		17.603				ND	
* 74 Chlorobenzene-d5	117	18.500	18.500	0.000	92	2834410	10.0	
75 Chlorobenzene	112		18.559				ND	
76 Ethylbenzene	91		18.713				ND	
78 m-Xylene & p-Xylene	106		18.964				ND	
79 o-Xylene	106		19.797				ND	
80 Styrene	104		19.855				ND	
S 73 Xylenes, Total	106		20.100				ND	
81 Bromoform	173		20.277				ND	
82 Isopropylbenzene	105		20.485				ND	
84 1,1,2,2-Tetrachloroethane	83		21.147				ND	
85 N-Propylbenzene	91		21.206				ND	
88 4-Ethyltoluene	105		21.392				ND	
89 2-Chlorotoluene	91		21.403				ND	
90 1,3,5-Trimethylbenzene	105		21.504				ND	
92 tert-Butylbenzene	119		21.990				ND	
93 1,2,4-Trimethylbenzene	105		22.086				ND	
94 sec-Butylbenzene	105		22.316				ND	
95 4-Isopropyltoluene	119		22.513				ND	
96 1,3-Dichlorobenzene	146		22.545				ND	
97 1,4-Dichlorobenzene	146		22.679				ND	
98 Benzyl chloride	91		22.876				ND	
100 n-Butylbenzene	91		23.084				ND	
101 1,2-Dichlorobenzene	146		23.207				ND	
103 1,2,4-Trichlorobenzene	180	25.678	25.673	0.005	90	1734	0.0213	
104 Hexachlorobutadiene	225		25.854				ND	
105 Naphthalene	128		26.148				ND	

Reagents:

ATTO15CISs_00007

Amount Added: 20.00

Units: mL

Run Reagent

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHC.i\20160418-19473.b\19473_06.D

Injection Date: 18-Apr-2016 15:27:30

Instrument ID: CHC.i

Operator ID: pad

Lims ID: 200-33065-A-5

Lab Sample ID: 200-33065-5

Worklist Smp#: 6

Client ID: 2984

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

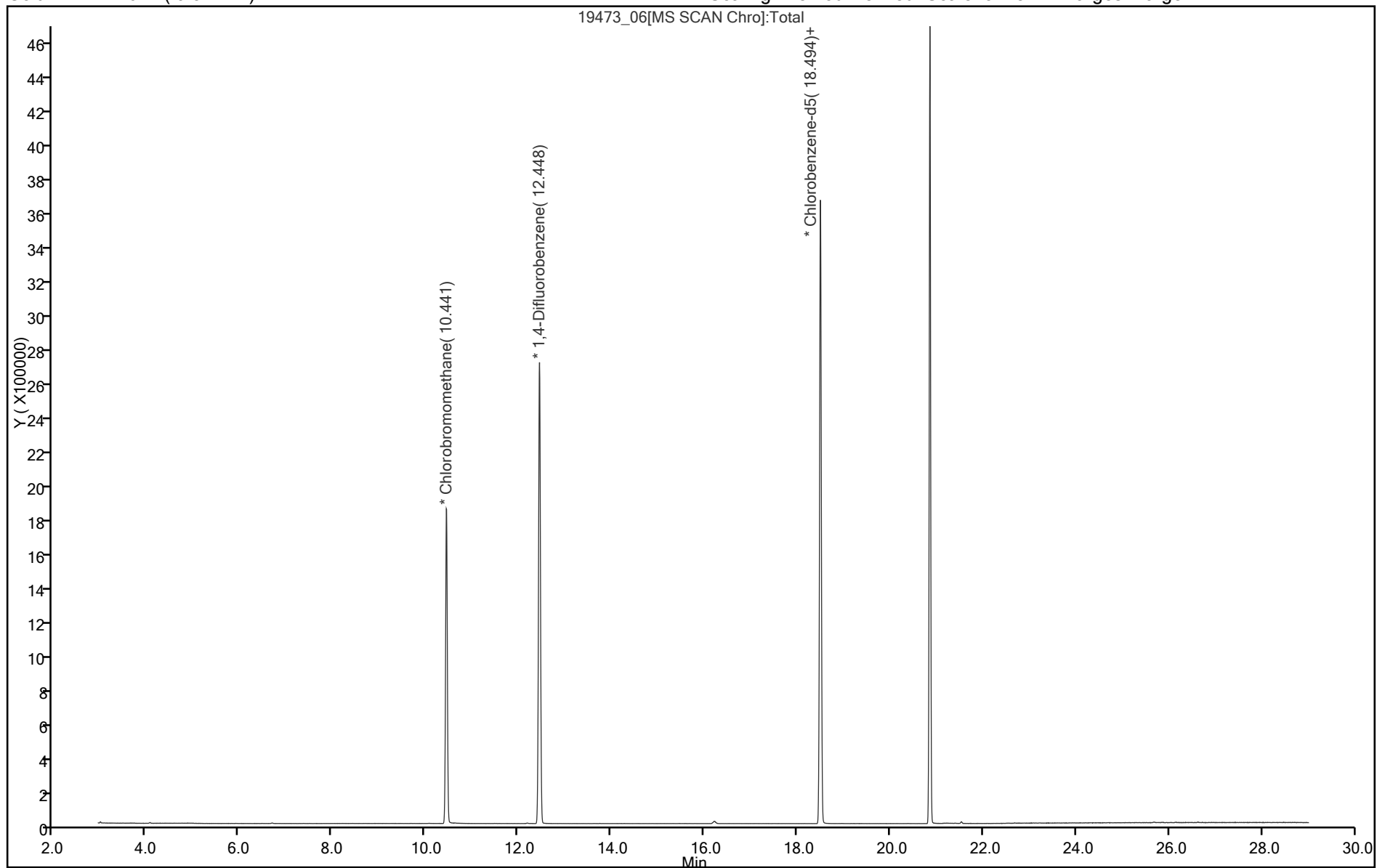
ALS Bottle#: 8

Method: TO15_MasterMethod_(v1)_CHC.i

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33250-1
 SDG No.: _____
 Client Sample ID: 3359 Lab Sample ID: 200-33250-7
 Matrix: Air Lab File ID: 19669_05.D
 Analysis Method: TO-15 Date Collected: 04/27/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/28/2016 16:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103818 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33250-1
 SDG No.: _____
 Client Sample ID: 3359 Lab Sample ID: 200-33250-7
 Matrix: Air Lab File ID: 19669_05.D
 Analysis Method: TO-15 Date Collected: 04/27/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/28/2016 16:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103818 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U *	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33250-1
 SDG No.: _____
 Client Sample ID: 3359 Lab Sample ID: 200-33250-7
 Matrix: Air Lab File ID: 19669_05.D
 Analysis Method: TO-15 Date Collected: 04/27/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 04/28/2016 16:41
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 103818 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20160428-19669.b\19669_05.D
 Lims ID: 200-33250-A-7
 Client ID: 3359
 Sample Type: Client
 Inject. Date: 28-Apr-2016 16:41:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0019669-005
 Misc. Info.: 33250-07
 Operator ID: ggg Instrument ID: CHG.i
 Method: \\ChromNA\Burlington\ChromData\CHG.i\20160428-19669.b\TO15_MasterMethod_(v1)_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 29-Apr-2016 11:41:38 Calib Date: 14-Apr-2016 02:05:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHG.i\20160413-19400.b\19400_12.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK050

First Level Reviewer: guazzonig

Date:

29-Apr-2016 11:41:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		2.742				ND	
2 Dichlorodifluoromethane	85		2.806				ND	
3 Chlorodifluoromethane	51		2.849				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		3.057				ND	
5 Chloromethane	50		3.170				ND	
6 Butane	43		3.373				ND	
7 Vinyl chloride	62		3.400				ND	
8 Butadiene	54		3.475				ND	
10 Bromomethane	94		4.106				ND	
11 Chloroethane	64		4.336				ND	
13 Vinyl bromide	106		4.721				ND	
14 Trichlorofluoromethane	101		4.839				ND	
17 Ethanol	45		5.400				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		5.930				ND	
21 1,1-Dichloroethene	96		5.941				ND	
22 Acetone	43		6.144				ND	
23 Carbon disulfide	76		6.310				ND	
24 Isopropyl alcohol	45		6.492				ND	
25 3-Chloro-1-propene	41		6.716				ND	
27 Methylene Chloride	49	6.995	6.995	0.000	84	2067	0.0779	
28 2-Methyl-2-propanol	59		7.278				ND	
31 trans-1,2-Dichloroethene	61		7.465				ND	
29 Methyl tert-butyl ether	73		7.471				ND	
33 Hexane	57		7.915				ND	
34 1,1-Dichloroethane	63		8.321				ND	
35 Vinyl acetate	43		8.423				ND	
37 cis-1,2-Dichloroethene	96		9.418				ND	
38 2-Butanone (MEK)	72		9.466				ND	
39 Ethyl acetate	88		9.552				ND	
S 30 1,2-Dichloroethene, Total	61		9.665				ND	
* 40 Chlorobromomethane	128	9.862	9.862	0.000	69	350463	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
41 Tetrahydrofuran	42		9.910				ND	
42 Chloroform	83		10.012				ND	
44 1,1,1-Trichloroethane	97		10.306				ND	
43 Cyclohexane	84		10.317				ND	
45 Carbon tetrachloride	117		10.568				ND	
47 Benzene	78		10.996				ND	
46 Isooctane	57		11.060				ND	
48 1,2-Dichloroethane	62		11.141				ND	
49 n-Heptane	43		11.462				ND	
* 50 1,4-Difluorobenzene	114	11.836	11.842	-0.006	92	2269133	10.0	
53 Trichloroethene	95		12.307				ND	
54 1,2-Dichloropropane	63		12.810				ND	
55 Methyl methacrylate	69		13.040				ND	
57 Dibromomethane	174		13.056				ND	
56 1,4-Dioxane	88		13.067				ND	
58 Dichlorobromomethane	83		13.372				ND	
60 cis-1,3-Dichloropropene	75		14.345				ND	
61 4-Methyl-2-pentanone (MIBK)	43		14.666				ND	
65 Toluene	92		14.987				ND	
66 trans-1,3-Dichloropropene	75		15.586				ND	
67 1,1,2-Trichloroethane	83		15.955				ND	
68 Tetrachloroethene	166		16.143				ND	
69 2-Hexanone	43		16.464				ND	
71 Chlorodibromomethane	129		16.747				ND	
72 Ethylene Dibromide	107		17.009				ND	
* 74 Chlorobenzene-d5	117	17.967	17.967	0.000	82	3368514	10.0	
75 Chlorobenzene	112		18.026				ND	
76 Ethylbenzene	91		18.213				ND	
78 m-Xylene & p-Xylene	106		18.470				ND	
79 o-Xylene	106		19.310				ND	
80 Styrene	104		19.358				ND	
S 73 Xylenes, Total	106		19.600				ND	
81 Bromoform	173		19.764				ND	
82 Isopropylbenzene	105		20.064				ND	
84 1,1,2,2-Tetrachloroethane	83		20.706				ND	
85 N-Propylbenzene	91		20.834				ND	
89 2-Chlorotoluene	91		21.022				ND	
88 4-Ethyltoluene	105		21.038				ND	
90 1,3,5-Trimethylbenzene	105		21.150				ND	
92 tert-Butylbenzene	119		21.653				ND	
93 1,2,4-Trimethylbenzene	105		21.749				ND	
94 sec-Butylbenzene	105		21.995				ND	
95 4-Isopropyltoluene	119		22.204				ND	
96 1,3-Dichlorobenzene	146	22.220	22.209	0.011	86	2224	0.0102	
97 1,4-Dichlorobenzene	146		22.343				ND	
98 Benzyl chloride	91		22.530				ND	
100 n-Butylbenzene	91	22.782	22.776	0.006	88	5084	0.0149	
101 1,2-Dichlorobenzene	146		22.862				ND	
103 1,2,4-Trichlorobenzene	180	25.269	25.243	0.026	61	2806	0.0261	
104 Hexachlorobutadiene	225		25.457				ND	
105 Naphthalene	128		25.670				ND	

Reagents:

ATTO15GIS_00011

Amount Added: 20.00

Units: mL

Run Reagent

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20160428-19669.b\19669_05.D

Injection Date: 28-Apr-2016 16:41:30

Instrument ID: CHG.i

Operator ID: ggg

Lims ID: 200-33250-A-7

Lab Sample ID: 200-33250-7

Worklist Smp#: 5

Client ID: 3359

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

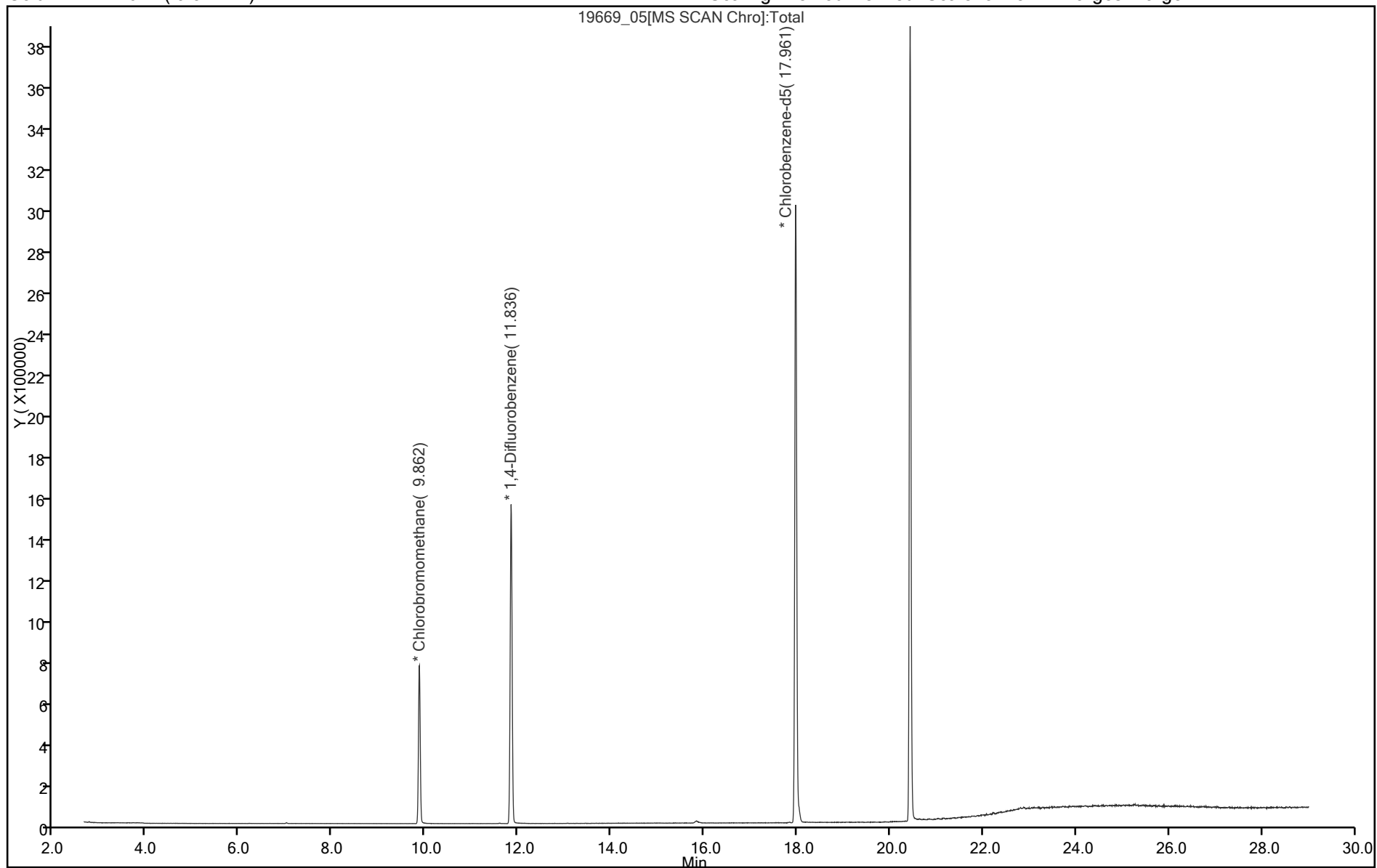
ALS Bottle#: 4

Method: TO15_MasterMethod_(v1)_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33378-1
 SDG No.: _____
 Client Sample ID: 5855 Lab Sample ID: 200-33378-7
 Matrix: Air Lab File ID: 19871_21.d
 Analysis Method: TO-15 Date Collected: 05/04/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 05/10/2016 06:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 104320 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33378-1
 SDG No.: _____
 Client Sample ID: 5855 Lab Sample ID: 200-33378-7
 Matrix: Air Lab File ID: 19871_21.d
 Analysis Method: TO-15 Date Collected: 05/04/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 05/10/2016 06:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 104320 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-33378-1
 SDG No.: _____
 Client Sample ID: 5855 Lab Sample ID: 200-33378-7
 Matrix: Air Lab File ID: 19871_21.d
 Analysis Method: TO-15 Date Collected: 05/04/2016 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 05/10/2016 06:29
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 104320 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20160509-19871.b\19871_21.d
 Lims ID: 200-33378-A-7
 Client ID: 5855
 Sample Type: Client
 Inject. Date: 10-May-2016 06:29:30 ALS Bottle#: 18 Worklist Smp#: 21
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0019871-021
 Misc. Info.: 33378-07
 Operator ID: ggg Instrument ID: CHW.i
 Method: \\ChromNA\Burlington\ChromData\CHW.i\20160509-19871.b\TO15_MasterMethod_(v1).m
 Limit Group: AI_TO15_ICAL
 Last Update: 11-May-2016 10:33:31 Calib Date: 03-May-2016 02:56:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHW.i\20160502-19741.b\195741_12.d
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: guazzonig

Date: 11-May-2016 10:34:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		5.153				ND	
2 Dichlorodifluoromethane	85		5.276				ND	
3 Chlorodifluoromethane	51		5.361				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		5.709				ND	
5 Chloromethane	50		5.891				ND	
6 Butane	43		6.185				ND	
7 Vinyl chloride	62		6.239				ND	
8 Butadiene	54		6.346				ND	
10 Bromomethane	94		7.159				ND	
11 Chloroethane	64		7.416				ND	
13 Vinyl bromide	106		7.833				ND	
14 Trichlorofluoromethane	101		7.929				ND	
17 Ethanol	45		8.448				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		8.951				ND	
21 1,1-Dichloroethene	96		9.015				ND	
22 Acetone	43	9.245	9.218	0.027	98	12787	0.3834	
23 Carbon disulfide	76		9.416				ND	
24 Isopropyl alcohol	45	9.438	9.427	0.011	99	9348	0.2831	
25 3-Chloro-1-propene	41		9.721				ND	
27 Methylene Chloride	49	9.994	9.989	0.005	1	1890	0.0719	
28 2-Methyl-2-propanol	59		10.123				ND	
S 30 1,2-Dichloroethene, Total	61		10.200				ND	
29 Methyl tert-butyl ether	73		10.331				ND	
31 trans-1,2-Dichloroethene	61		10.390				ND	
33 Hexane	57		10.727				ND	
34 1,1-Dichloroethane	63		11.203				ND	
35 Vinyl acetate	43		11.230				ND	
37 cis-1,2-Dichloroethene	96		12.214				ND	
38 2-Butanone (MEK)	72		12.241				ND	
39 Ethyl acetate	88		12.246				ND	
* 40 Chlorobromomethane	128	12.642	12.648	-0.006	91	229641	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
41 Tetrahydrofuran	42		12.648				ND	
42 Chloroform	83		12.739				ND	
43 Cyclohexane	84		13.006				ND	
44 1,1,1-Trichloroethane	97		13.022				ND	
45 Carbon tetrachloride	117		13.247				ND	
46 Isooctane	57		13.605				ND	
47 Benzene	78		13.669				ND	
48 1,2-Dichloroethane	62		13.814				ND	
49 n-Heptane	43		13.921				ND	
* 50 1,4-Difluorobenzene	114	14.365	14.365	0.000	94	1157193	10.0	
53 Trichloroethene	95		14.798				ND	
54 1,2-Dichloropropane	63		15.296				ND	
55 Methyl methacrylate	69		15.376				ND	
56 1,4-Dioxane	88		15.462				ND	
57 Dibromomethane	174		15.520				ND	
58 Dichlorobromomethane	83		15.756				ND	
60 cis-1,3-Dichloropropene	75		16.585				ND	
61 4-Methyl-2-pentanone (MIBK)	43		16.826				ND	
65 Toluene	92		17.136				ND	
66 trans-1,3-Dichloropropene	75		17.655				ND	
67 1,1,2-Trichloroethane	83		18.013				ND	
68 Tetrachloroethene	166		18.131				ND	
69 2-Hexanone	43		18.409				ND	
71 Chlorodibromomethane	129		18.746				ND	
72 Ethylene Dibromide	107		19.024				ND	
* 74 Chlorobenzene-d5	117	19.864	19.864	0.000	86	1062448	10.0	
75 Chlorobenzene	112		19.923				ND	
76 Ethylbenzene	91		20.052				ND	
S 73 Xylenes, Total	106		20.100				ND	
78 m-Xylene & p-Xylene	106		20.282				ND	
79 o-Xylene	106		21.031				ND	
80 Styrene	104		21.068				ND	
81 Bromoform	173		21.448				ND	
82 Isopropylbenzene	105		21.614				ND	
84 1,1,2,2-Tetrachloroethane	83		22.197				ND	
85 N-Propylbenzene	91		22.277				ND	
88 4-Ethyltoluene	105		22.448				ND	
89 2-Chlorotoluene	91		22.470				ND	
90 1,3,5-Trimethylbenzene	105		22.545				ND	
92 tert-Butylbenzene	119		23.015				ND	
93 1,2,4-Trimethylbenzene	105		23.106				ND	
94 sec-Butylbenzene	105		23.336				ND	
95 4-Isopropyltoluene	119		23.534				ND	
96 1,3-Dichlorobenzene	146		23.582				ND	
97 1,4-Dichlorobenzene	146		23.721				ND	
98 Benzyl chloride	91		23.930				ND	
100 n-Butylbenzene	91		24.144				ND	
101 1,2-Dichlorobenzene	146		24.299				ND	
103 1,2,4-Trichlorobenzene	180		27.060				ND	
104 Hexachlorobutadiene	225		27.252				ND	
105 Naphthalene	128		27.616				ND	

Reagents:

ATTO15WISs_00004

Amount Added: 20.00

Units: mL

Run Reagent

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Report Date: 11-May-2016 10:35:47

Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20160509-19871.b\19871_21.d

Injection Date: 10-May-2016 06:29:30

Instrument ID: CHW.i

Operator ID: ggg

Lims ID: 200-33378-A-7

Lab Sample ID: 200-33378-7

Worklist Smp#: 21

Client ID: 5855

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

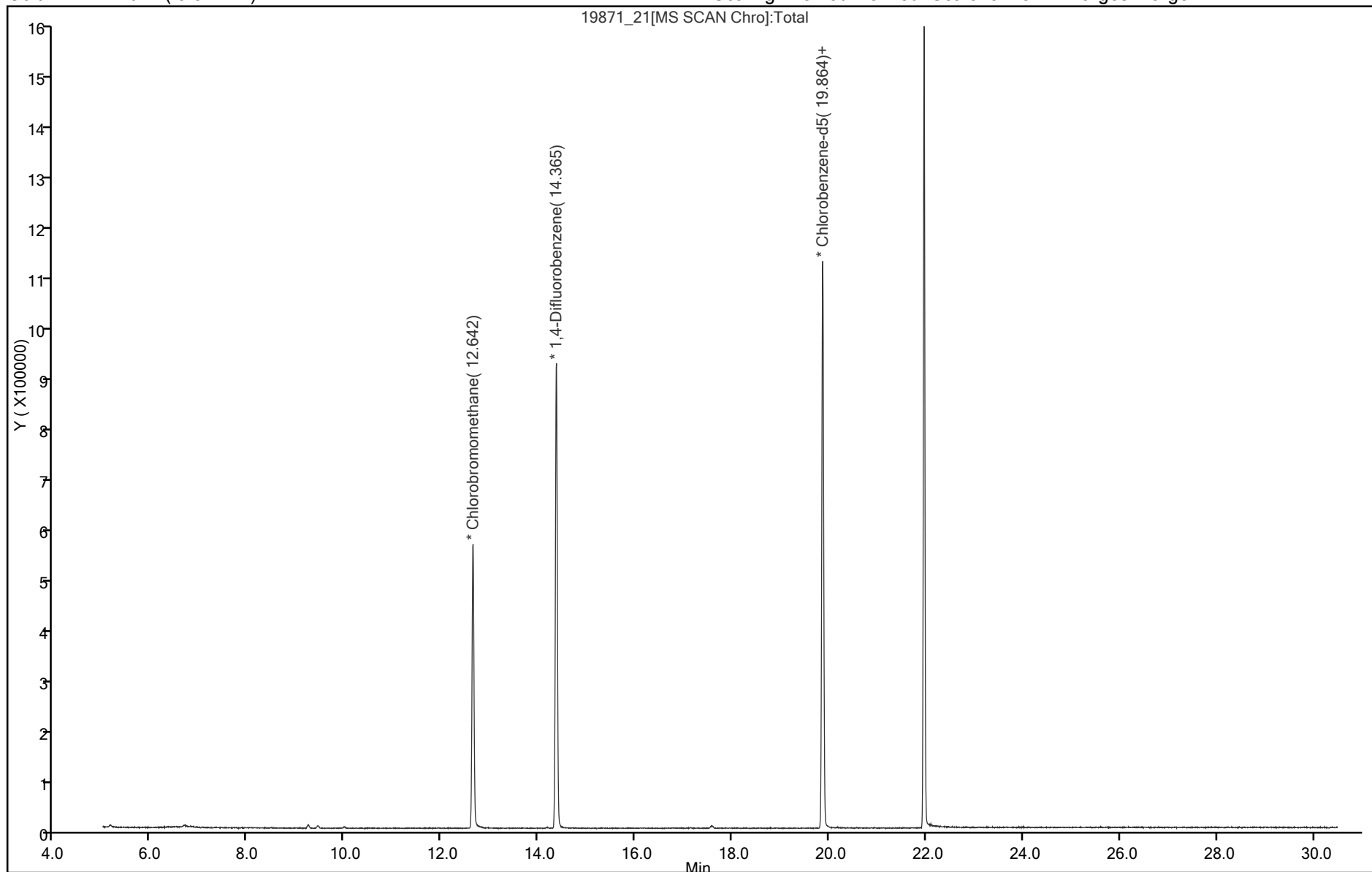
ALS Bottle#: 18

Method: TO15_MasterMethod_(v1)

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1





ANALYTICAL ENVIRONMENTAL SERVICES, INC.

February 08, 2017

Andrew Romanek
CDM Smith Inc.
3200 Windy Hill
Atlanta GA 30339

TEL: (770) 952-8643
FAX: (770) 952-9893

RE: Cessna

Dear Andrew Romanek:

Order No: 1702105

Analytical Environmental Services, Inc. received 5 samples on 2/1/2017 5:10:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

-NELAC/Florida Certification number E87582 for analysis of Air & Emissions for Volatile Organics effective 07/01/16-06/30/17.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ioana Pacurar
Project Manager



APPENDIX

Compound	CAS #	Alternate Name	TO-14A	TO-15	SOP
Acetone	67-64-1				X
Allyl chloride	107-05-1	3-Chloropropene		X	
Benzene	71-43-2		X	X	
Benzyl chloride	100-44-7		X	X	
Bromodichloromethane	75-27-4	Dichlorobromomethane			X
Bromoform	75-25-2	Tribromomethane		X	
Bromomethane	74-83-9	Methyl bromide	X	X	
1,3-Butadiene	106-99-0			X	
Carbon disulfide	75-15-0			X	
Carbon tetrachloride	56-23-5		X	X	
Chlorobenzene	108-90-7		X	X	
Chloroethane	75-00-3	Ethyl chloride	X	X	
Chloroform	67-66-3		X	X	
Chloromethane	74-87-3	Methyl chloride	X	X	
Cyclohexane	110-82-7				X
Dibromochloromethane	124-48-1	Chlorodibromomethane			X
1,2-Dibromoethane	106-93-4	EDB/Ethylene dibromide	X	X	
1,2-Dichlorobenzene	95-50-1	<i>o</i> -Dichlorobenzene	X	X	
1,3-Dichlorobenzene	541-73-1	<i>m</i> -Dichlorobenzene	X	X	
1,4-Dichlorobenzene	106-46-7	<i>p</i> -Dichlorobenzene	X	X	
Dichlorodifluoromethane	75-71-8	Freon-12	X		
1,1-Dichloroethane	75-34-3		X	X	
1,2-Dichloroethane	107-06-2		X	X	
1,1-Dichloroethene	75-35-4	1,1-Dichloroethylene	X	X	
<i>cis</i> -1,2-Dichloroethene	156-59-2	<i>cis</i> -1,2-Dichloroethylene	X	X	
<i>trans</i> -1,2-Dichloroethene	156-60-5	<i>trans</i> -1,2-Dichloroethylene		X	
1,2-Dichloropropane	78-87-5		X	X	
<i>cis</i> -1,3-Dichloropropene	10061-01-5		X	X	
<i>trans</i> -1,3-Dichloropropene	10061-02-6		X	X	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	Freon-114	X		
1,4-Dioxane	123-91-1	1,4-Diethylene oxide		X	
Ethyl acetate	141-78-6	Acetic acid, ethyl ester			X
Ethylbenzene	100-41-4		X	X	
4-Ethyltoluene	622-96-8				X
n-Heptane	142-82-5	Heptane			X
Hexachlorobutadiene	87-68-3	Hexachloro-1,3-butadiene	X	X	



n-Hexane	110-54-3	Hexane		X	
Compound	CAS #	Alternate Name	TO-14A	TO-15	SOP
2-Hexanone	591-78-6	Methyl butyl ketone			X
Methylene chloride	75-09-2	Dichloromethane	X	X	
Methyl tert-butyl ether	1634-04-4	MTBE		X	
Methyl ethyl ketone	78-93-3	MEK/2-Butanone		X	
Methyl isobutyl ketone	108-10-1	4-Methyl-2-pentanone		X	
2-Propanol	67-63-0	Isopropanol/Isopropyl alcohol			X
Propene	115-07-1	Propylene			X
Styrene	100-42-5			X	
1,1,2,2-Tetrachloroethane	79-34-5		X	X	
Tetrachloroethene	127-18-4	Tetrachloroethylene	X	X	
Tetrahydrofuran	109-99-9				X
Toluene	108-88-3			X	
1,2,4-Trichlorobenzene	120-82-1			X	
1,1,1-Trichloroethane	74-55-6			X	
1,1,2-Trichloroethane	79-00-5			X	
Trichloroethene	79-01-6	Trichloroethylene		X	
Trichlorofluoromethane	75-69-4	Freon-11	X		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	Freon-113	X		
1,2,4-Trimethylbenzene	95-63-6		X	X	
1,3,5-Trimethylbenzene	108-67-8		X	X	
2,2,4-Trimethylpentane	540-84-1	Isooctane		X	
Vinyl acetate	108-05-04			X	
Vinyl bromide	593-60-2	Bromoethene		X	
Vinyl chloride	75-01-4	Chloroethene	X	X	
Xylenes, Total	1330-20-7		X	X	
m/p-Xylene	179601-23-1		X	X	
o-Xylene	95-47-6		X	X	



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

VAPOR/AIR CHAIN OF CUSTODY

Work Order #: 1702105

Page 1 of 1

Company: CAN Smith		Address: 3200 Windy Hill Suite 210 West Atlanta, GA 30339		Bottle Order #: 79288		Turnaround Time (Circle One): Standard 3 Day Rush 2 Day Rush Other											
Phone: 404-720-1400		Fax:		Sample Matrix*	Canister Serial #	Flow Controller ID	Canister Pressure In Field ("Hg) Start	Canister Pressure In Field ("Hg) Stop	ANALYSIS REQUESTED								Remarks
Sampled by: Nick Fuller		Signature: [Signature]							TO-15								
#	Sample ID	Sample Start															
		Date	Time (24hr)	Date	Time (24 hr)												
1	System	2/1/17	1024	2/1/17	1031	SV	3902	01133	-27	-1	X						
2	SVE-1	2/1/17	1042	2/1/17	1055	SV	3977	01129	-28	-8	X				Potentially High VOC Concentration		
3	SVE-2	2/1/17	1043	2/1/17	1057	SV	3981	01139	-28	-8	X				Potentially High VOC Concentration		
4	SVE-3	2/1/17	1052	2/1/17	1105	SV	3899	01132	-29	-8	X						
5	SVE-4	2/1/17	1054	2/1/17	1106	SV	4016	01098	-29	-8	X						
6																	
7																	
8																	
9																	
10																	

SPECIAL INSTRUCTIONS/COMMENTS: If specialized list is required, list analytes here:		RELINQUISHED BY: [Signature] DATE/TIME: 2-1-17 1710		RECEIVED BY: [Signature] DATE/TIME: 2/1/17 5:10pm		PROJECT INFORMATION	
						PROJECT NAME: Cessna	
						PROJECT #:	
						SITE ADDRESS: Columbus, GA	
						SEND REPORT TO: Andrew Romanek	
						INVOICE TO: (IF DIFFERENT FROM ABOVE) RomanekAP@CANSmith.com	
						PO#:	
						STATE PROGRAM (if any): _____ E-mail? Y/N _____ Fax? Y/N _____	
						QUOTE #: _____ DATA PACKAGE: I II III IV	

SHIPMENT METHOD

OUT / / VIA:

IN / **[Signature]** VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER _____

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC, AES WILL PROCEED AS STANDARD TAT.

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

*SAMPLE MATRIX: IA = Indoor Air AA = Ambient Air SS = Subslab SV = Soil Vapor O = Other (specify)

AES, Inc., assumes no liability with respect to the collection and shipment of these samples.

Page 4 of 26

White Copy - Original: Blue Copy - Client

Client: CDM Smith Inc.**Project:** Cessna**Lab ID:** 1702105**Case Narrative**

Volatiles Organic Compounds Analysis by Method TO-14/15:

Due to sample matrix, samples 1702105-001A, -002A, -003A, -004A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-001

Client Sample ID: SYSTEM
Collection Date: 2/1/2017 10:31:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS TO-15								
1,1,1-Trichloroethane	240	55		ug/m3	237683	2	02/07/2017 19:14	MD
1,1,2,2-Tetrachloroethane	BRL	69		ug/m3	237683	2	02/07/2017 19:14	MD
1,1,2-Trichloroethane	57	55		ug/m3	237683	2	02/07/2017 19:14	MD
1,1-Dichloroethane	2600	40		ug/m3	237683	2	02/07/2017 19:14	MD
1,1-Dichloroethene	5000	40		ug/m3	237683	2	02/07/2017 19:14	MD
1,2,4-Trichlorobenzene	BRL	74		ug/m3	237683	2	02/07/2017 19:14	MD
1,2,4-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 19:14	MD
1,2-Dibromoethane	BRL	77		ug/m3	237683	2	02/07/2017 19:14	MD
1,2-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 19:14	MD
1,2-Dichloroethane	BRL	40		ug/m3	237683	2	02/07/2017 19:14	MD
1,2-Dichloropropane	BRL	46		ug/m3	237683	2	02/07/2017 19:14	MD
1,3,5-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 19:14	MD
1,3-Butadiene	BRL	22		ug/m3	237683	2	02/07/2017 19:14	MD
1,3-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 19:14	MD
1,4-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 19:14	MD
1,4-Dioxane	BRL	36		ug/m3	237683	2	02/07/2017 19:14	MD
2,2,4-Trimethylpentane	BRL	47		ug/m3	237683	2	02/07/2017 19:14	MD
2-Butanone	BRL	29		ug/m3	237683	2	02/07/2017 19:14	MD
2-Hexanone	BRL	41		ug/m3	237683	2	02/07/2017 19:14	MD
4-Ethyltoluene	BRL	49		ug/m3	237683	2	02/07/2017 19:14	MD
4-Methyl-2-pentanone	BRL	41		ug/m3	237683	2	02/07/2017 19:14	MD
Acetone	BRL	120		ug/m3	237683	2	02/07/2017 19:14	MD
Allyl chloride	BRL	31		ug/m3	237683	2	02/07/2017 19:14	MD
Benzene	BRL	32		ug/m3	237683	2	02/07/2017 19:14	MD
Benzyl chloride	BRL	52		ug/m3	237683	2	02/07/2017 19:14	MD
Bromodichloromethane	BRL	67		ug/m3	237683	2	02/07/2017 19:14	MD
Bromoform	BRL	100		ug/m3	237683	2	02/07/2017 19:14	MD
Bromomethane	BRL	39		ug/m3	237683	2	02/07/2017 19:14	MD
Carbon disulfide	BRL	31		ug/m3	237683	2	02/07/2017 19:14	MD
Carbon tetrachloride	BRL	63		ug/m3	237683	2	02/07/2017 19:14	MD
Chlorobenzene	BRL	46		ug/m3	237683	2	02/07/2017 19:14	MD
Chloroethane	BRL	26		ug/m3	237683	2	02/07/2017 19:14	MD
Chloroform	360	49		ug/m3	237683	2	02/07/2017 19:14	MD
Chloromethane	BRL	21		ug/m3	237683	2	02/07/2017 19:14	MD
cis-1,2-Dichloroethene	6000	40		ug/m3	237683	2	02/07/2017 19:14	MD
cis-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 19:14	MD
Cyclohexane	BRL	34		ug/m3	237683	2	02/07/2017 19:14	MD
Dibromochloromethane	BRL	85		ug/m3	237683	2	02/07/2017 19:14	MD
Dichlorodifluoromethane	BRL	49		ug/m3	237683	2	02/07/2017 19:14	MD
Ethyl acetate	BRL	36		ug/m3	237683	2	02/07/2017 19:14	MD
Ethylbenzene	BRL	43		ug/m3	237683	2	02/07/2017 19:14	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-001

Client Sample ID: SYSTEM
Collection Date: 2/1/2017 10:31:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
Freon-113	BRL	77		ug/m3	237683	2	02/07/2017 19:14	MD
Freon-114	BRL	70		ug/m3	237683	2	02/07/2017 19:14	MD
Hexachlorobutadiene	BRL	110		ug/m3	237683	2	02/07/2017 19:14	MD
Isopropyl alcohol	BRL	180		ug/m3	237683	2	02/07/2017 19:14	MD
m,p-Xylene	BRL	87		ug/m3	237683	2	02/07/2017 19:14	MD
Methyl tert-butyl ether	BRL	36		ug/m3	237683	2	02/07/2017 19:14	MD
Methylene chloride	BRL	35		ug/m3	237683	2	02/07/2017 19:14	MD
n-Heptane	BRL	41		ug/m3	237683	2	02/07/2017 19:14	MD
n-Hexane	BRL	35		ug/m3	237683	2	02/07/2017 19:14	MD
o-Xylene	BRL	43		ug/m3	237683	2	02/07/2017 19:14	MD
Propene	BRL	17		ug/m3	237683	2	02/07/2017 19:14	MD
Styrene	BRL	43		ug/m3	237683	2	02/07/2017 19:14	MD
Tetrachloroethene	BRL	68		ug/m3	237683	2	02/07/2017 19:14	MD
Tetrahydrofuran	1200	29		ug/m3	237683	2	02/07/2017 19:14	MD
Toluene	BRL	38		ug/m3	237683	2	02/07/2017 19:14	MD
trans-1,2-Dichloroethene	450	40		ug/m3	237683	2	02/07/2017 19:14	MD
trans-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 19:14	MD
Trichloroethene	510000	3200		ug/m3	237683	120	02/08/2017 10:43	MD
Trichlorofluoromethane	BRL	56		ug/m3	237683	2	02/07/2017 19:14	MD
Vinyl acetate	BRL	35		ug/m3	237683	2	02/07/2017 19:14	MD
Vinyl bromide	BRL	44		ug/m3	237683	2	02/07/2017 19:14	MD
Vinyl chloride	BRL	26		ug/m3	237683	2	02/07/2017 19:14	MD
Xylenes, Total	BRL	130		ug/m3	237683	2	02/07/2017 19:14	MD
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	237683	120	02/08/2017 10:43	MD
Surr: 4-Bromofluorobenzene	72.5	70-130		%REC	237683	2	02/07/2017 19:14	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-002

Client Sample ID: SVE-1
Collection Date: 2/1/2017 10:55:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
1,1,1-Trichloroethane	1700	55		ug/m3	237683	2	02/07/2017 20:02	MD
1,1,2,2-Tetrachloroethane	BRL	69		ug/m3	237683	2	02/07/2017 20:02	MD
1,1,2-Trichloroethane	2200	55		ug/m3	237683	2	02/07/2017 20:02	MD
1,1-Dichloroethane	17000	9700		ug/m3	237683	240	02/08/2017 11:31	MD
1,1-Dichloroethene	34000	9500		ug/m3	237683	240	02/08/2017 11:31	MD
1,2,4-Trichlorobenzene	BRL	74		ug/m3	237683	2	02/07/2017 20:02	MD
1,2,4-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 20:02	MD
1,2-Dibromoethane	BRL	77		ug/m3	237683	2	02/07/2017 20:02	MD
1,2-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:02	MD
1,2-Dichloroethane	BRL	40		ug/m3	237683	2	02/07/2017 20:02	MD
1,2-Dichloropropane	BRL	46		ug/m3	237683	2	02/07/2017 20:02	MD
1,3,5-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 20:02	MD
1,3-Butadiene	BRL	22		ug/m3	237683	2	02/07/2017 20:02	MD
1,3-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:02	MD
1,4-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:02	MD
1,4-Dioxane	BRL	36		ug/m3	237683	2	02/07/2017 20:02	MD
2,2,4-Trimethylpentane	BRL	47		ug/m3	237683	2	02/07/2017 20:02	MD
2-Butanone	74	29		ug/m3	237683	2	02/07/2017 20:02	MD
2-Hexanone	BRL	41		ug/m3	237683	2	02/07/2017 20:02	MD
4-Ethyltoluene	BRL	49		ug/m3	237683	2	02/07/2017 20:02	MD
4-Methyl-2-pentanone	BRL	41		ug/m3	237683	2	02/07/2017 20:02	MD
Acetone	BRL	120		ug/m3	237683	2	02/07/2017 20:02	MD
Allyl chloride	BRL	31		ug/m3	237683	2	02/07/2017 20:02	MD
Benzene	89	32		ug/m3	237683	2	02/07/2017 20:02	MD
Benzyl chloride	BRL	52		ug/m3	237683	2	02/07/2017 20:02	MD
Bromodichloromethane	BRL	67		ug/m3	237683	2	02/07/2017 20:02	MD
Bromoform	BRL	100		ug/m3	237683	2	02/07/2017 20:02	MD
Bromomethane	BRL	39		ug/m3	237683	2	02/07/2017 20:02	MD
Carbon disulfide	86	31		ug/m3	237683	2	02/07/2017 20:02	MD
Carbon tetrachloride	BRL	63		ug/m3	237683	2	02/07/2017 20:02	MD
Chlorobenzene	BRL	46		ug/m3	237683	2	02/07/2017 20:02	MD
Chloroethane	BRL	26		ug/m3	237683	2	02/07/2017 20:02	MD
Chloroform	3800	49		ug/m3	237683	2	02/07/2017 20:02	MD
Chloromethane	BRL	21		ug/m3	237683	2	02/07/2017 20:02	MD
cis-1,2-Dichloroethene	38000	9500		ug/m3	237683	240	02/08/2017 11:31	MD
cis-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 20:02	MD
Cyclohexane	BRL	34		ug/m3	237683	2	02/07/2017 20:02	MD
Dibromochloromethane	BRL	85		ug/m3	237683	2	02/07/2017 20:02	MD
Dichlorodifluoromethane	BRL	49		ug/m3	237683	2	02/07/2017 20:02	MD
Ethyl acetate	BRL	36		ug/m3	237683	2	02/07/2017 20:02	MD
Ethylbenzene	BRL	43		ug/m3	237683	2	02/07/2017 20:02	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-002

Client Sample ID: SVE-1
Collection Date: 2/1/2017 10:55:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
Freon-113	170	77		ug/m3	237683	2	02/07/2017 20:02	MD
Freon-114	BRL	70		ug/m3	237683	2	02/07/2017 20:02	MD
Hexachlorobutadiene	BRL	110		ug/m3	237683	2	02/07/2017 20:02	MD
Isopropyl alcohol	BRL	180		ug/m3	237683	2	02/07/2017 20:02	MD
m,p-Xylene	BRL	87		ug/m3	237683	2	02/07/2017 20:02	MD
Methyl tert-butyl ether	BRL	36		ug/m3	237683	2	02/07/2017 20:02	MD
Methylene chloride	68	35		ug/m3	237683	2	02/07/2017 20:02	MD
n-Heptane	BRL	41		ug/m3	237683	2	02/07/2017 20:02	MD
n-Hexane	67	35		ug/m3	237683	2	02/07/2017 20:02	MD
o-Xylene	BRL	43		ug/m3	237683	2	02/07/2017 20:02	MD
Propene	BRL	17		ug/m3	237683	2	02/07/2017 20:02	MD
Styrene	BRL	43		ug/m3	237683	2	02/07/2017 20:02	MD
Tetrachloroethene	550	68		ug/m3	237683	2	02/07/2017 20:02	MD
Tetrahydrofuran	3200	29		ug/m3	237683	2	02/07/2017 20:02	MD
Toluene	62	38		ug/m3	237683	2	02/07/2017 20:02	MD
trans-1,2-Dichloroethene	3400	40		ug/m3	237683	2	02/07/2017 20:02	MD
trans-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 20:02	MD
Trichloroethene	6100000	390000		ug/m3	237683	14400	02/08/2017 14:43	MD
Trichlorofluoromethane	BRL	56		ug/m3	237683	2	02/07/2017 20:02	MD
Vinyl acetate	BRL	35		ug/m3	237683	2	02/07/2017 20:02	MD
Vinyl bromide	BRL	44		ug/m3	237683	2	02/07/2017 20:02	MD
Vinyl chloride	180	26		ug/m3	237683	2	02/07/2017 20:02	MD
Xylenes, Total	BRL	130		ug/m3	237683	2	02/07/2017 20:02	MD
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	237683	14400	02/08/2017 14:43	MD
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	237683	2	02/07/2017 20:02	MD
Surr: 4-Bromofluorobenzene	118	70-130		%REC	237683	240	02/08/2017 11:31	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-003

Client Sample ID: SVE-2
Collection Date: 2/1/2017 10:57:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
1,1,1-Trichloroethane	580	55		ug/m3	237683	2	02/07/2017 20:50	MD
1,1,2,2-Tetrachloroethane	BRL	69		ug/m3	237683	2	02/07/2017 20:50	MD
1,1,2-Trichloroethane	BRL	55		ug/m3	237683	2	02/07/2017 20:50	MD
1,1-Dichloroethane	2600	40		ug/m3	237683	2	02/07/2017 20:50	MD
1,1-Dichloroethene	2900	40		ug/m3	237683	2	02/07/2017 20:50	MD
1,2,4-Trichlorobenzene	BRL	74		ug/m3	237683	2	02/07/2017 20:50	MD
1,2,4-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 20:50	MD
1,2-Dibromoethane	BRL	77		ug/m3	237683	2	02/07/2017 20:50	MD
1,2-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:50	MD
1,2-Dichloroethane	BRL	40		ug/m3	237683	2	02/07/2017 20:50	MD
1,2-Dichloropropane	BRL	46		ug/m3	237683	2	02/07/2017 20:50	MD
1,3,5-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 20:50	MD
1,3-Butadiene	BRL	22		ug/m3	237683	2	02/07/2017 20:50	MD
1,3-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:50	MD
1,4-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 20:50	MD
1,4-Dioxane	BRL	36		ug/m3	237683	2	02/07/2017 20:50	MD
2,2,4-Trimethylpentane	BRL	47		ug/m3	237683	2	02/07/2017 20:50	MD
2-Butanone	BRL	29		ug/m3	237683	2	02/07/2017 20:50	MD
2-Hexanone	BRL	41		ug/m3	237683	2	02/07/2017 20:50	MD
4-Ethyltoluene	BRL	49		ug/m3	237683	2	02/07/2017 20:50	MD
4-Methyl-2-pentanone	BRL	41		ug/m3	237683	2	02/07/2017 20:50	MD
Acetone	BRL	120		ug/m3	237683	2	02/07/2017 20:50	MD
Allyl chloride	BRL	31		ug/m3	237683	2	02/07/2017 20:50	MD
Benzene	BRL	32		ug/m3	237683	2	02/07/2017 20:50	MD
Benzyl chloride	BRL	52		ug/m3	237683	2	02/07/2017 20:50	MD
Bromodichloromethane	BRL	67		ug/m3	237683	2	02/07/2017 20:50	MD
Bromoform	BRL	100		ug/m3	237683	2	02/07/2017 20:50	MD
Bromomethane	BRL	39		ug/m3	237683	2	02/07/2017 20:50	MD
Carbon disulfide	BRL	31		ug/m3	237683	2	02/07/2017 20:50	MD
Carbon tetrachloride	BRL	63		ug/m3	237683	2	02/07/2017 20:50	MD
Chlorobenzene	BRL	46		ug/m3	237683	2	02/07/2017 20:50	MD
Chloroethane	32	26		ug/m3	237683	2	02/07/2017 20:50	MD
Chloroform	700	49		ug/m3	237683	2	02/07/2017 20:50	MD
Chloromethane	BRL	21		ug/m3	237683	2	02/07/2017 20:50	MD
cis-1,2-Dichloroethene	15000	4800		ug/m3	237683	240	02/08/2017 13:07	MD
cis-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 20:50	MD
Cyclohexane	BRL	34		ug/m3	237683	2	02/07/2017 20:50	MD
Dibromochloromethane	BRL	85		ug/m3	237683	2	02/07/2017 20:50	MD
Dichlorodifluoromethane	BRL	49		ug/m3	237683	2	02/07/2017 20:50	MD
Ethyl acetate	420	36		ug/m3	237683	2	02/07/2017 20:50	MD
Ethylbenzene	BRL	43		ug/m3	237683	2	02/07/2017 20:50	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-003

Client Sample ID: SVE-2
Collection Date: 2/1/2017 10:57:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
Freon-113	BRL	77		ug/m3	237683	2	02/07/2017 20:50	MD
Freon-114	BRL	70		ug/m3	237683	2	02/07/2017 20:50	MD
Hexachlorobutadiene	BRL	110		ug/m3	237683	2	02/07/2017 20:50	MD
Isopropyl alcohol	BRL	180		ug/m3	237683	2	02/07/2017 20:50	MD
m,p-Xylene	BRL	87		ug/m3	237683	2	02/07/2017 20:50	MD
Methyl tert-butyl ether	BRL	36		ug/m3	237683	2	02/07/2017 20:50	MD
Methylene chloride	BRL	35		ug/m3	237683	2	02/07/2017 20:50	MD
n-Heptane	BRL	41		ug/m3	237683	2	02/07/2017 20:50	MD
n-Hexane	BRL	35		ug/m3	237683	2	02/07/2017 20:50	MD
o-Xylene	BRL	43		ug/m3	237683	2	02/07/2017 20:50	MD
Propene	BRL	17		ug/m3	237683	2	02/07/2017 20:50	MD
Styrene	BRL	43		ug/m3	237683	2	02/07/2017 20:50	MD
Tetrachloroethene	BRL	68		ug/m3	237683	2	02/07/2017 20:50	MD
Tetrahydrofuran	2400	29		ug/m3	237683	2	02/07/2017 20:50	MD
Toluene	38	38		ug/m3	237683	2	02/07/2017 20:50	MD
trans-1,2-Dichloroethene	840	40		ug/m3	237683	2	02/07/2017 20:50	MD
trans-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 20:50	MD
Trichloroethene	700000	6400		ug/m3	237683	240	02/08/2017 13:07	MD
Trichlorofluoromethane	BRL	56		ug/m3	237683	2	02/07/2017 20:50	MD
Vinyl acetate	BRL	35		ug/m3	237683	2	02/07/2017 20:50	MD
Vinyl bromide	BRL	44		ug/m3	237683	2	02/07/2017 20:50	MD
Vinyl chloride	60	26		ug/m3	237683	2	02/07/2017 20:50	MD
Xylenes, Total	BRL	130		ug/m3	237683	2	02/07/2017 20:50	MD
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	237683	2	02/07/2017 20:50	MD
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	237683	240	02/08/2017 13:07	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-004

Client Sample ID: SVE-3
Collection Date: 2/1/2017 11:05:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
1,1,1-Trichloroethane	140	55		ug/m3	237683	2	02/07/2017 21:38	MD
1,1,2,2-Tetrachloroethane	BRL	69		ug/m3	237683	2	02/07/2017 21:38	MD
1,1,2-Trichloroethane	BRL	55		ug/m3	237683	2	02/07/2017 21:38	MD
1,1-Dichloroethane	1100	40		ug/m3	237683	2	02/07/2017 21:38	MD
1,1-Dichloroethene	3900	40		ug/m3	237683	2	02/07/2017 21:38	MD
1,2,4-Trichlorobenzene	BRL	74		ug/m3	237683	2	02/07/2017 21:38	MD
1,2,4-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 21:38	MD
1,2-Dibromoethane	BRL	77		ug/m3	237683	2	02/07/2017 21:38	MD
1,2-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 21:38	MD
1,2-Dichloroethane	BRL	40		ug/m3	237683	2	02/07/2017 21:38	MD
1,2-Dichloropropane	BRL	46		ug/m3	237683	2	02/07/2017 21:38	MD
1,3,5-Trimethylbenzene	BRL	49		ug/m3	237683	2	02/07/2017 21:38	MD
1,3-Butadiene	BRL	22		ug/m3	237683	2	02/07/2017 21:38	MD
1,3-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 21:38	MD
1,4-Dichlorobenzene	BRL	60		ug/m3	237683	2	02/07/2017 21:38	MD
1,4-Dioxane	BRL	36		ug/m3	237683	2	02/07/2017 21:38	MD
2,2,4-Trimethylpentane	BRL	47		ug/m3	237683	2	02/07/2017 21:38	MD
2-Butanone	BRL	29		ug/m3	237683	2	02/07/2017 21:38	MD
2-Hexanone	BRL	41		ug/m3	237683	2	02/07/2017 21:38	MD
4-Ethyltoluene	BRL	49		ug/m3	237683	2	02/07/2017 21:38	MD
4-Methyl-2-pentanone	BRL	41		ug/m3	237683	2	02/07/2017 21:38	MD
Acetone	BRL	120		ug/m3	237683	2	02/07/2017 21:38	MD
Allyl chloride	BRL	31		ug/m3	237683	2	02/07/2017 21:38	MD
Benzene	BRL	32		ug/m3	237683	2	02/07/2017 21:38	MD
Benzyl chloride	BRL	52		ug/m3	237683	2	02/07/2017 21:38	MD
Bromodichloromethane	BRL	67		ug/m3	237683	2	02/07/2017 21:38	MD
Bromoform	BRL	100		ug/m3	237683	2	02/07/2017 21:38	MD
Bromomethane	BRL	39		ug/m3	237683	2	02/07/2017 21:38	MD
Carbon disulfide	BRL	31		ug/m3	237683	2	02/07/2017 21:38	MD
Carbon tetrachloride	BRL	63		ug/m3	237683	2	02/07/2017 21:38	MD
Chlorobenzene	BRL	46		ug/m3	237683	2	02/07/2017 21:38	MD
Chloroethane	BRL	26		ug/m3	237683	2	02/07/2017 21:38	MD
Chloroform	78	49		ug/m3	237683	2	02/07/2017 21:38	MD
Chloromethane	BRL	21		ug/m3	237683	2	02/07/2017 21:38	MD
cis-1,2-Dichloroethene	46	40		ug/m3	237683	2	02/07/2017 21:38	MD
cis-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 21:38	MD
Cyclohexane	BRL	34		ug/m3	237683	2	02/07/2017 21:38	MD
Dibromochloromethane	BRL	85		ug/m3	237683	2	02/07/2017 21:38	MD
Dichlorodifluoromethane	BRL	49		ug/m3	237683	2	02/07/2017 21:38	MD
Ethyl acetate	280	36		ug/m3	237683	2	02/07/2017 21:38	MD
Ethylbenzene	BRL	43		ug/m3	237683	2	02/07/2017 21:38	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-004

Client Sample ID: SVE-3
Collection Date: 2/1/2017 11:05:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
Freon-113	BRL	77		ug/m3	237683	2	02/07/2017 21:38	MD
Freon-114	BRL	70		ug/m3	237683	2	02/07/2017 21:38	MD
Hexachlorobutadiene	BRL	110		ug/m3	237683	2	02/07/2017 21:38	MD
Isopropyl alcohol	BRL	180		ug/m3	237683	2	02/07/2017 21:38	MD
m,p-Xylene	BRL	87		ug/m3	237683	2	02/07/2017 21:38	MD
Methyl tert-butyl ether	BRL	36		ug/m3	237683	2	02/07/2017 21:38	MD
Methylene chloride	BRL	35		ug/m3	237683	2	02/07/2017 21:38	MD
n-Heptane	BRL	41		ug/m3	237683	2	02/07/2017 21:38	MD
n-Hexane	BRL	35		ug/m3	237683	2	02/07/2017 21:38	MD
o-Xylene	BRL	43		ug/m3	237683	2	02/07/2017 21:38	MD
Propene	BRL	17		ug/m3	237683	2	02/07/2017 21:38	MD
Styrene	BRL	43		ug/m3	237683	2	02/07/2017 21:38	MD
Tetrachloroethene	BRL	68		ug/m3	237683	2	02/07/2017 21:38	MD
Tetrahydrofuran	960	29		ug/m3	237683	2	02/07/2017 21:38	MD
Toluene	BRL	38		ug/m3	237683	2	02/07/2017 21:38	MD
trans-1,2-Dichloroethene	BRL	40		ug/m3	237683	2	02/07/2017 21:38	MD
trans-1,3-Dichloropropene	BRL	45		ug/m3	237683	2	02/07/2017 21:38	MD
Trichloroethene	81000	6400		ug/m3	237683	240	02/08/2017 13:55	MD
Trichlorofluoromethane	BRL	56		ug/m3	237683	2	02/07/2017 21:38	MD
Vinyl acetate	BRL	35		ug/m3	237683	2	02/07/2017 21:38	MD
Vinyl bromide	BRL	44		ug/m3	237683	2	02/07/2017 21:38	MD
Vinyl chloride	BRL	26		ug/m3	237683	2	02/07/2017 21:38	MD
Xylenes, Total	BRL	130		ug/m3	237683	2	02/07/2017 21:38	MD
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	237683	2	02/07/2017 21:38	MD
Surr: 4-Bromofluorobenzene	87	70-130		%REC	237683	240	02/08/2017 13:55	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-005

Client Sample ID: SVE-4
Collection Date: 2/1/2017 11:06:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
1,1,1-Trichloroethane	32	5.5		ug/m3	237683	2	02/08/2017 09:55	MD
1,1,2,2-Tetrachloroethane	BRL	6.9		ug/m3	237683	2	02/08/2017 09:55	MD
1,1,2-Trichloroethane	BRL	5.5		ug/m3	237683	2	02/08/2017 09:55	MD
1,1-Dichloroethane	110	4.0		ug/m3	237683	2	02/08/2017 09:55	MD
1,1-Dichloroethene	1700	40		ug/m3	237683	2	02/08/2017 09:06	MD
1,2,4-Trichlorobenzene	BRL	7.4		ug/m3	237683	2	02/08/2017 09:55	MD
1,2,4-Trimethylbenzene	BRL	4.9		ug/m3	237683	2	02/08/2017 09:55	MD
1,2-Dibromoethane	BRL	7.7		ug/m3	237683	2	02/08/2017 09:55	MD
1,2-Dichlorobenzene	BRL	6.0		ug/m3	237683	2	02/08/2017 09:55	MD
1,2-Dichloroethane	BRL	4.0		ug/m3	237683	2	02/08/2017 09:55	MD
1,2-Dichloropropane	BRL	4.6		ug/m3	237683	2	02/08/2017 09:55	MD
1,3,5-Trimethylbenzene	BRL	4.9		ug/m3	237683	2	02/08/2017 09:55	MD
1,3-Butadiene	BRL	2.2		ug/m3	237683	2	02/08/2017 09:55	MD
1,3-Dichlorobenzene	BRL	6.0		ug/m3	237683	2	02/08/2017 09:55	MD
1,4-Dichlorobenzene	BRL	6.0		ug/m3	237683	2	02/08/2017 09:55	MD
1,4-Dioxane	BRL	3.6		ug/m3	237683	2	02/08/2017 09:55	MD
2,2,4-Trimethylpentane	BRL	4.7		ug/m3	237683	2	02/08/2017 09:55	MD
2-Butanone	5.9	2.9		ug/m3	237683	2	02/08/2017 09:55	MD
2-Hexanone	BRL	4.1		ug/m3	237683	2	02/08/2017 09:55	MD
4-Ethyltoluene	BRL	4.9		ug/m3	237683	2	02/08/2017 09:55	MD
4-Methyl-2-pentanone	BRL	4.1		ug/m3	237683	2	02/08/2017 09:55	MD
Acetone	34	12		ug/m3	237683	2	02/08/2017 09:55	MD
Allyl chloride	BRL	3.1		ug/m3	237683	2	02/08/2017 09:55	MD
Benzene	7.8	3.2		ug/m3	237683	2	02/08/2017 09:55	MD
Benzyl chloride	BRL	5.2		ug/m3	237683	2	02/08/2017 09:55	MD
Bromodichloromethane	BRL	6.7		ug/m3	237683	2	02/08/2017 09:55	MD
Bromoform	BRL	10		ug/m3	237683	2	02/08/2017 09:55	MD
Bromomethane	BRL	3.9		ug/m3	237683	2	02/08/2017 09:55	MD
Carbon disulfide	BRL	3.1		ug/m3	237683	2	02/08/2017 09:55	MD
Carbon tetrachloride	BRL	6.3		ug/m3	237683	2	02/08/2017 09:55	MD
Chlorobenzene	BRL	4.6		ug/m3	237683	2	02/08/2017 09:55	MD
Chloroethane	BRL	2.6		ug/m3	237683	2	02/08/2017 09:55	MD
Chloroform	15	4.9		ug/m3	237683	2	02/08/2017 09:55	MD
Chloromethane	BRL	2.1		ug/m3	237683	2	02/08/2017 09:55	MD
cis-1,2-Dichloroethene	BRL	4.0		ug/m3	237683	2	02/08/2017 09:55	MD
cis-1,3-Dichloropropene	BRL	4.5		ug/m3	237683	2	02/08/2017 09:55	MD
Cyclohexane	BRL	3.4		ug/m3	237683	2	02/08/2017 09:55	MD
Dibromochloromethane	BRL	8.5		ug/m3	237683	2	02/08/2017 09:55	MD
Dichlorodifluoromethane	BRL	4.9		ug/m3	237683	2	02/08/2017 09:55	MD
Ethyl acetate	470	36		ug/m3	237683	2	02/08/2017 09:06	MD
Ethylbenzene	7.2	4.3		ug/m3	237683	2	02/08/2017 09:55	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Client: CDM Smith Inc.
Project Name: Cessna
Lab ID: 1702105-005

Client Sample ID: SVE-4
Collection Date: 2/1/2017 11:06:00 AM
Matrix: Air

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Toxic Organic Compounds in Air by GCMS		TO-15						
Freon-113	95	7.7		ug/m3	237683	2	02/08/2017 09:55	MD
Freon-114	BRL	7.0		ug/m3	237683	2	02/08/2017 09:55	MD
Hexachlorobutadiene	BRL	11		ug/m3	237683	2	02/08/2017 09:55	MD
Isopropyl alcohol	33	18		ug/m3	237683	2	02/08/2017 09:55	MD
m,p-Xylene	31	8.7		ug/m3	237683	2	02/08/2017 09:55	MD
Methyl tert-butyl ether	BRL	3.6		ug/m3	237683	2	02/08/2017 09:55	MD
Methylene chloride	BRL	3.5		ug/m3	237683	2	02/08/2017 09:55	MD
n-Heptane	BRL	4.1		ug/m3	237683	2	02/08/2017 09:55	MD
n-Hexane	BRL	3.5		ug/m3	237683	2	02/08/2017 09:55	MD
o-Xylene	6.3	4.3		ug/m3	237683	2	02/08/2017 09:55	MD
Propene	BRL	1.7		ug/m3	237683	2	02/08/2017 09:55	MD
Styrene	BRL	4.3		ug/m3	237683	2	02/08/2017 09:55	MD
Tetrachloroethene	BRL	6.8		ug/m3	237683	2	02/08/2017 09:55	MD
Tetrahydrofuran	290	2.9		ug/m3	237683	2	02/08/2017 09:55	MD
Toluene	61	3.8		ug/m3	237683	2	02/08/2017 09:55	MD
trans-1,2-Dichloroethene	BRL	4.0		ug/m3	237683	2	02/08/2017 09:55	MD
trans-1,3-Dichloropropene	BRL	4.5		ug/m3	237683	2	02/08/2017 09:55	MD
Trichloroethene	2000	54		ug/m3	237683	2	02/08/2017 09:06	MD
Trichlorofluoromethane	69	5.6		ug/m3	237683	2	02/08/2017 09:55	MD
Vinyl acetate	BRL	3.5		ug/m3	237683	2	02/08/2017 09:55	MD
Vinyl bromide	BRL	4.4		ug/m3	237683	2	02/08/2017 09:55	MD
Vinyl chloride	BRL	2.6		ug/m3	237683	2	02/08/2017 09:55	MD
Xylenes, Total	37	13		ug/m3	237683	2	02/08/2017 09:55	MD
Surr: 4-Bromofluorobenzene	90.8	70-130		%REC	237683	2	02/08/2017 09:06	MD
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	237683	2	02/08/2017 09:55	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: SYSTEM				Lab ID: 1702105-001			
Collection Date: 2/1/2017 10:31:00 AM				Matrix: Air			
Toxic Organic Compounds in Air by GCMS TO-15				(TO-15)			
1,1,1-Trichloroethane	44		0.77	10	ppbv	237683	2
1,1,2-Trichloroethane	10		0.84	10	ppbv	237683	2
1,1-Dichloroethane	650		0.84	10	ppbv	237683	2
1,1-Dichloroethene	1200		0.60	10	ppbv	237683	2
Chloroform	74		0.60	10	ppbv	237683	2
cis-1,2-Dichloroethene	1500		0.60	10	ppbv	237683	2
Tetrahydrofuran	400		0.77	10	ppbv	237683	2
trans-1,2-Dichloroethene	110		0.60	10	ppbv	237683	2
Trichloroethene	95000		65	600	ppbv	237683	120
Client Sample ID: SVE-1				Lab ID: 1702105-002			
Collection Date: 2/1/2017 10:55:00 AM				Matrix: Air			
Toxic Organic Compounds in Air by GCMS TO-15				(TO-15)			
1,1,1-Trichloroethane	320		0.77	10	ppbv	237683	2
1,1,2-Trichloroethane	400		0.84	10	ppbv	237683	2
1,1-Dichloroethane	4100		200	2400	ppbv	237683	240
1,1-Dichloroethene	8500		140	2400	ppbv	237683	240
2-Butanone	25		1.2	10	ppbv	237683	2
Benzene	28		0.60	10	ppbv	237683	2
Carbon disulfide	28		0.60	10	ppbv	237683	2
Chloroform	790		0.60	10	ppbv	237683	2
cis-1,2-Dichloroethene	9600		140	2400	ppbv	237683	240
Freon-113	22		0.60	10	ppbv	237683	2
Methylene chloride	20		0.60	10	ppbv	237683	2
n-Hexane	19		0.84	10	ppbv	237683	2
Tetrachloroethene	80		0.77	10	ppbv	237683	2
Tetrahydrofuran	1100		0.77	10	ppbv	237683	2
Toluene	16		0.77	10	ppbv	237683	2
trans-1,2-Dichloroethene	870		0.60	10	ppbv	237683	2
Trichloroethene	1100000		7800	72000	ppbv	237683	14400
Vinyl chloride	71		2.3	10	ppbv	237683	2
Client Sample ID: SVE-2				Lab ID: 1702105-003			
Collection Date: 2/1/2017 10:57:00 AM				Matrix: Air			
Toxic Organic Compounds in Air by GCMS TO-15				(TO-15)			
1,1,1-Trichloroethane	110		0.77	10	ppbv	237683	2
1,1-Dichloroethane	640		0.84	10	ppbv	237683	2
1,1-Dichloroethene	730		0.60	10	ppbv	237683	2
Chloroethane	12		2.2	10	ppbv	237683	2
Chloroform	140		0.60	10	ppbv	237683	2
cis-1,2-Dichloroethene	3800		71	1200	ppbv	237683	240
Ethyl acetate	120		0.77	10	ppbv	237683	2
Tetrahydrofuran	800		0.77	10	ppbv	237683	2
Toluene	10		0.77	10	ppbv	237683	2
trans-1,2-Dichloroethene	210		0.60	10	ppbv	237683	2
Trichloroethene	130000		130	1200	ppbv	237683	240
Vinyl chloride	24		2.3	10	ppbv	237683	2
Page 16 of 26							

SUMMARY OF ANALYTES DETECTED

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	Dilution Factor
Client Sample ID: SVE-3				Lab ID:	1702105-004		
Collection Date: 2/1/2017 11:05:00 AM				Matrix:	Air		
Toxic Organic Compounds in Air by GCMS		TO-15		(TO-15)			
1,1,1-Trichloroethane	26		0.77	10	ppbv	237683	2
1,1-Dichloroethane	280		0.84	10	ppbv	237683	2
1,1-Dichloroethene	990		0.60	10	ppbv	237683	2
Chloroform	16		0.60	10	ppbv	237683	2
cis-1,2-Dichloroethene	12		0.60	10	ppbv	237683	2
Ethyl acetate	78		0.77	10	ppbv	237683	2
Tetrahydrofuran	330		0.77	10	ppbv	237683	2
Trichloroethene	15000		130	1200	ppbv	237683	240
Client Sample ID: SVE-4				Lab ID:	1702105-005		
Collection Date: 2/1/2017 11:06:00 AM				Matrix:	Air		
Toxic Organic Compounds in Air by GCMS		TO-15		(TO-15)			
1,1,1-Trichloroethane	5.8		0.077	1.0	ppbv	237683	2
1,1-Dichloroethane	28		0.084	1.0	ppbv	237683	2
1,1-Dichloroethene	420		0.60	10	ppbv	237683	2
2-Butanone	2.0		0.12	1.0	ppbv	237683	2
Acetone	14		0.14	5.0	ppbv	237683	2
Benzene	2.4		0.060	1.0	ppbv	237683	2
Chloroform	3.0		0.060	1.0	ppbv	237683	2
Ethyl acetate	130		0.77	10	ppbv	237683	2
Ethylbenzene	1.6		0.084	1.0	ppbv	237683	2
Freon-113	12		0.060	1.0	ppbv	237683	2
Isopropyl alcohol	14		1.3	7.5	ppbv	237683	2
m,p-Xylene	7.1		0.36	2.0	ppbv	237683	2
o-Xylene	1.4		0.060	1.0	ppbv	237683	2
Tetrahydrofuran	97		0.077	1.0	ppbv	237683	2
Toluene	16		0.077	1.0	ppbv	237683	2
Trichloroethene	370		1.1	10	ppbv	237683	2
Trichlorofluoromethane	12		0.12	1.0	ppbv	237683	2
Xylenes, Total	8.6		0.12	3.0	ppbv	237683	2

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample Receipt Checklist for Air Canisters

Client com Work Order Number 1702105

Checklist completed by *M. J. Fee* 2/1/17
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container? Yes ☐ No ☐ Not Present ☒

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Field data sheets present? Yes ☐ No ☒

Sample containers intact? Yes ☒ No ☐

If no, explain: _____

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

All canisters received per Bottle Order issued? Yes ☒ No ☐

See Case Narrative for resolution of the Non-Conformance.

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: MB-237683	Client ID:	Units: ppbv				Prep Date: 02/07/2017	Run No: 335976				
SampleType: MBLK	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683				Analysis Date: 02/07/2017	Seq No: 7333398				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	0.20
1,1,2,2-Tetrachloroethane	BRL	0.20
1,1,2-Trichloroethane	BRL	0.20
1,1-Dichloroethane	BRL	0.20
1,1-Dichloroethene	BRL	0.20
1,2,4-Trichlorobenzene	BRL	0.20
1,2,4-Trimethylbenzene	BRL	0.20
1,2-Dibromoethane	BRL	0.20
1,2-Dichlorobenzene	BRL	0.20
1,2-Dichloroethane	BRL	0.20
1,2-Dichloropropane	BRL	0.20
1,3,5-Trimethylbenzene	BRL	0.20
1,3-Butadiene	BRL	0.20
1,3-Dichlorobenzene	BRL	0.20
1,4-Dichlorobenzene	BRL	0.20
1,4-Dioxane	BRL	0.20
2,2,4-Trimethylpentane	BRL	0.20
2-Butanone	BRL	0.20
2-Hexanone	BRL	0.20
4-Ethyltoluene	BRL	0.20
4-Methyl-2-pentanone	BRL	0.20
Acetone	BRL	1.0
Allyl chloride	BRL	0.20
Benzene	BRL	0.20
Benzyl chloride	BRL	0.20
Bromodichloromethane	BRL	0.20
Bromoform	BRL	0.20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
Project Name: Cessna
Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: MB-237683	Client ID:	Units: ppbv				Prep Date: 02/07/2017	Run No: 335976				
SampleType: MBLK	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683				Analysis Date: 02/07/2017	Seq No: 7333398				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Bromomethane	BRL	0.20
Carbon disulfide	BRL	0.20
Carbon tetrachloride	BRL	0.20
Chlorobenzene	BRL	0.20
Chloroethane	BRL	0.20
Chloroform	BRL	0.20
Chloromethane	BRL	0.20
cis-1,2-Dichloroethene	BRL	0.20
cis-1,3-Dichloropropene	BRL	0.20
Cyclohexane	BRL	0.20
Dibromochloromethane	BRL	0.20
Dichlorodifluoromethane	BRL	0.20
Ethyl acetate	BRL	0.20
Ethylbenzene	BRL	0.20
Freon-113	BRL	0.20
Freon-114	BRL	0.20
Hexachlorobutadiene	BRL	0.20
Isopropyl alcohol	BRL	1.5
m,p-Xylene	BRL	0.40
Methyl tert-butyl ether	BRL	0.20
Methylene chloride	BRL	0.20
n-Heptane	BRL	0.20
n-Hexane	BRL	0.20
o-Xylene	BRL	0.20
Propene	BRL	0.20
Styrene	BRL	0.20
Tetrachloroethene	BRL	0.20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: MB-237683	Client ID:					Units: ppbv	Prep Date: 02/07/2017	Run No: 335976			
SampleType: MBLK	TestCode: Toxic Organic Compounds in Air by GCMS TO-15					BatchID: 237683	Analysis Date: 02/07/2017	Seq No: 7333398			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Tetrahydrofuran	BRL	0.20									
Toluene	BRL	0.20									
trans-1,2-Dichloroethene	BRL	0.20									
trans-1,3-Dichloropropene	BRL	0.20									
Trichloroethene	BRL	0.20									
Trichlorofluoromethane	BRL	0.20									
Vinyl acetate	BRL	0.20									
Vinyl bromide	BRL	0.20									
Vinyl chloride	BRL	0.20									
Xylenes, Total	BRL	0.60									
Surr: 4-Bromofluorobenzene	3.780	0	4.000		94.5	70	130				

Sample ID: LCS-237683	Client ID:	Units: ppbv				Prep Date: 02/07/2017	Run No: 335977				
SampleType: LCS	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683				Analysis Date: 02/07/2017	Seq No: 7333429				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	2.010	0.20	2.000		100	70	130				
1,1,2,2-Tetrachloroethane	2.030	0.20	2.000	0.07000	98.0	70	130				
1,1,2-Trichloroethane	1.990	0.20	2.000		99.5	70	130				
1,1-Dichloroethane	2.040	0.20	2.000		102	70	130				
1,1-Dichloroethene	1.990	0.20	2.000		99.5	70	130				
1,2,4-Trichlorobenzene	1.890	0.20	2.000	0.09000	90.0	70	130				
1,2,4-Trimethylbenzene	2.040	0.20	2.000	0.06000	99.0	70	130				
1,2-Dibromoethane	2.010	0.20	2.000		100	70	130				
1,2-Dichlorobenzene	2.030	0.20	2.000	0.09000	97.0	70	130				
1,2-Dichloroethane	1.970	0.20	2.000		98.5	70	130				
1,2-Dichloropropane	2.000	0.20	2.000		100	70	130				
1,3,5-Trimethylbenzene	2.050	0.20	2.000	0.06000	99.5	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: LCS-237683	Client ID:					Units: ppbv	Prep Date: 02/07/2017	Run No: 335977			
SampleType: LCS	TestCode: Toxic Organic Compounds in Air by GCMS TO-15					BatchID: 237683	Analysis Date: 02/07/2017	Seq No: 7333429			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,3-Butadiene	2.020	0.20	2.000		101	70	130				
1,3-Dichlorobenzene	2.050	0.20	2.000	0.07000	99.0	70	130				
1,4-Dichlorobenzene	1.990	0.20	2.000	0.07000	96.0	70	130				
1,4-Dioxane	1.990	0.20	2.000		99.5	70	130				
2,2,4-Trimethylpentane	2.070	0.20	2.000		104	70	130				
2-Butanone	1.950	0.20	2.000		97.5	70	130				
2-Hexanone	2.050	0.20	2.000		102	70	130				
4-Ethyltoluene	1.990	0.20	2.000		99.5	70	130				
4-Methyl-2-pentanone	2.000	0.20	2.000		100	70	130				
Acetone	1.960	1.0	2.000		98.0	70	130				
Allyl chloride	2.000	0.20	2.000		100	70	130				
Benzene	1.970	0.20	2.000		98.5	70	130				
Benzyl chloride	1.900	0.20	2.000		95.0	70	130				
Bromodichloromethane	2.000	0.20	2.000		100	70	130				
Bromoform	1.970	0.20	2.000		98.5	70	130				
Bromomethane	2.050	0.20	2.000		102	70	130				
Carbon disulfide	2.020	0.20	2.000		101	70	130				
Carbon tetrachloride	2.000	0.20	2.000		100	70	130				
Chlorobenzene	2.020	0.20	2.000		101	70	130				
Chloroethane	2.000	0.20	2.000		100	70	130				
Chloroform	2.010	0.20	2.000		100	70	130				
Chloromethane	1.970	0.20	2.000		98.5	70	130				
cis-1,2-Dichloroethene	2.000	0.20	2.000		100	70	130				
cis-1,3-Dichloropropene	1.970	0.20	2.000		98.5	70	130				
Cyclohexane	2.000	0.20	2.000		100	70	130				
Dibromochloromethane	2.000	0.20	2.000		100	70	130				
Dichlorodifluoromethane	2.020	0.20	2.000		101	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
Project Name: Cessna
Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: LCS-237683		Client ID:				Units: ppbv		Prep Date: 02/07/2017		Run No: 335977	
SampleType: LCS		TestCode: Toxic Organic Compounds in Air by GCMS TO-15				BatchID: 237683		Analysis Date: 02/07/2017		Seq No: 7333429	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Ethyl acetate	1.980	0.20	2.000		99.0	70	130				
Ethylbenzene	2.030	0.20	2.000		102	70	130				
Freon-113	2.000	0.20	2.000		100	70	130				
Freon-114	2.020	0.20	2.000		101	70	130				
Hexachlorobutadiene	1.920	0.20	2.000	0.1000	91.0	70	130				
Isopropyl alcohol	2.040	1.5	2.000		102	70	130				
m,p-Xylene	4.120	0.40	4.000	0.08000	101	70	130				
Methyl tert-butyl ether	1.980	0.20	2.000		99.0	70	130				
Methylene chloride	2.000	0.20	2.000		100	70	130				
n-Heptane	2.030	0.20	2.000		102	70	130				
n-Hexane	2.020	0.20	2.000		101	70	130				
o-Xylene	2.110	0.20	2.000	0.05000	103	70	130				
Propene	1.990	0.20	2.000		99.5	70	130				
Styrene	2.040	0.20	2.000	0.05000	99.5	70	130				
Tetrachloroethene	2.010	0.20	2.000		100	70	130				
Tetrahydrofuran	2.010	0.20	2.000		100	70	130				
Toluene	1.970	0.20	2.000		98.5	70	130				
trans-1,2-Dichloroethene	1.990	0.20	2.000		99.5	70	130				
trans-1,3-Dichloropropene	1.950	0.20	2.000		97.5	70	130				
Trichloroethene	2.030	0.20	2.000		102	70	130				
Trichlorofluoromethane	2.030	0.20	2.000		102	70	130				
Vinyl acetate	1.910	0.20	2.000		95.5	70	130				
Vinyl bromide	1.990	0.20	2.000		99.5	70	130				
Vinyl chloride	2.070	0.20	2.000		104	70	130				
Xylenes, Total	6.230	0.60	6.000	0.1300	102	70	130				
Surr: 4-Bromofluorobenzene	4.010	0	4.000		100	70	130				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
Project Name: Cessna
Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: 1702105-005ADUP	Client ID: SVE-4	Units: ppbv	Prep Date: 02/07/2017	Run No: 335977							
SampleType: DUP	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683	Analysis Date: 02/07/2017	Seq No: 7333434							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	10						0	0	25	
1,1,2,2-Tetrachloroethane	BRL	10						0	0	25	
1,1,2-Trichloroethane	BRL	10						0	0	25	
1,1-Dichloroethane	17.00	10						0	0	25	
1,1-Dichloroethene	355.0	10						0	0	25	
1,2,4-Trichlorobenzene	BRL	10						0	0	25	
1,2,4-Trimethylbenzene	BRL	10						0	0	25	
1,2-Dibromoethane	BRL	10						0	0	25	
1,2-Dichlorobenzene	BRL	10						0	0	25	
1,2-Dichloroethane	BRL	10						0	0	25	
1,2-Dichloropropane	BRL	10						0	0	25	
1,3,5-Trimethylbenzene	BRL	10						0	0	25	
1,3-Butadiene	BRL	10						0	0	25	
1,3-Dichlorobenzene	BRL	10						0	0	25	
1,4-Dichlorobenzene	BRL	10						0	0	25	
1,4-Dioxane	BRL	10						0	0	25	
2,2,4-Trimethylpentane	BRL	10						0	0	25	
2-Butanone	BRL	10						0	0	25	
2-Hexanone	BRL	10						0	0	25	
4-Ethyltoluene	BRL	10						0	0	25	
4-Methyl-2-pentanone	BRL	10						0	0	25	
Acetone	BRL	50						0	0	25	
Allyl chloride	BRL	10						0	0	25	
Benzene	BRL	10						0	0	25	
Benzyl chloride	BRL	10						0	0	25	
Bromodichloromethane	BRL	10						0	0	25	
Bromoform	BRL	10						0	0	25	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
 Project Name: Cessna
 Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: 1702105-005ADUP	Client ID: SVE-4	Units: ppbv	Prep Date: 02/07/2017	Run No: 335977
SampleType: DUP	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683	Analysis Date: 02/07/2017	Seq No: 7333434

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Bromomethane	BRL	10						0	0	25	
Carbon disulfide	BRL	10						0	0	25	
Carbon tetrachloride	BRL	10						0	0	25	
Chlorobenzene	BRL	10						0	0	25	
Chloroethane	BRL	10						0	0	25	
Chloroform	BRL	10						0	0	25	
Chloromethane	BRL	10						0	0	25	
cis-1,2-Dichloroethene	BRL	10						0	0	25	
cis-1,3-Dichloropropene	BRL	10						0	0	25	
Cyclohexane	BRL	10						0	0	25	
Dibromochloromethane	BRL	10						0	0	25	
Dichlorodifluoromethane	BRL	10						0	0	25	
Ethyl acetate	113.0	10						0	0	25	
Ethylbenzene	BRL	10						0	0	25	
Freon-113	BRL	10						0	0	25	
Freon-114	BRL	10						0	0	25	
Hexachlorobutadiene	BRL	10						0	0	25	
Isopropyl alcohol	BRL	75						0	0	25	
m,p-Xylene	BRL	20						0	0	25	
Methyl tert-butyl ether	BRL	10						0	0	25	
Methylene chloride	BRL	10						0	0	25	
n-Heptane	BRL	10						0	0	25	
n-Hexane	BRL	10						0	0	25	
o-Xylene	BRL	10						0	0	25	
Propene	BRL	10						0	0	25	
Styrene	BRL	10						0	0	25	
Tetrachloroethene	BRL	10						0	0	25	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: CDM Smith Inc.
Project Name: Cessna
Workorder: 1702105

ANALYTICAL QC SUMMARY REPORT

BatchID: 237683

Sample ID: 1702105-005ADUP	Client ID: SVE-4	Units: ppbv	Prep Date: 02/07/2017	Run No: 335977							
SampleType: DUP	TestCode: Toxic Organic Compounds in Air by GCMS TO-15	BatchID: 237683	Analysis Date: 02/07/2017	Seq No: 7333434							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Tetrahydrofuran	64.00	10						0	0	25	
Toluene	BRL	10						0	0	25	
trans-1,2-Dichloroethene	BRL	10						0	0	25	
trans-1,3-Dichloropropene	BRL	10						0	0	25	
Trichloroethene	312.0	10						0	0	25	
Trichlorofluoromethane	BRL	10						0	0	25	
Vinyl acetate	BRL	10						0	0	25	
Vinyl bromide	BRL	10						0	0	25	
Vinyl chloride	BRL	10						0	0	25	
Xylenes, Total	BRL	30						0	0	25	
Surr: 4-Bromofluorobenzene	180.0	0	200.0		90.0	70	130	0	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Attachment B-2

VISL Calculator Output

EPA-OLEM VAPOR INTRUSION ASSESSMENT

Vapor Intrusion Screening Level (VISL) Calculator Version 3.5.1 (May 2016 RSLs)

The primary objective of risk-based screening is to identify sites or buildings unlikely to pose a health concern through the vapor intrusion pathway. Generally, at properties where subsurface concentrations of vapor-forming chemicals (e.g., groundwater or "near source" soil gas concentrations) fall below screening levels (i.e., VISLs), no further action or study is warranted, so long as the exposure assumptions match those taken into account by the calculations and the site fulfills the conditions and assumptions of the generic conceptual model underlying the screening levels. In a similar fashion, the results of risk-based screening can help the data review team identify areas, buildings, and/or chemicals that can be eliminated from further assessment. The generic conceptual model underlying these screening levels is described in OSWER Publication 9200.2-154 (OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway From Subsurface Vapor Sources to Indoor Air) (EPA 2015; Section 6.5)

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	0.1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	19.4	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

CAS		Does the chemical meet the definition for volatility?	Does chemical have inhalation toxicity data?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 10E-06 or THQ = 0.1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 10E-06 or THQ = 0.1	Target Ground Water Conc. @ TCR = 10E-06 or THQ = 0.1	Is Target Ground Water Conc. < MCL?	Pure Phase Vapor Conc. @ 25°C	Maximum Groundwater Vapor Conc.	Temperature for Max. Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 10E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 0.1
		(HLC>1E-5 or VP>1)	(IUR and/or RFC)	Cvp > Cia.target?	Chc > Cia.target?	MIN(Cia,c,Cia,nc)		Csq	Cqw	Cqw<MCL?	Cvp	Chc	Tgw or 25	LEL		IUR		RFC		I	Cia,c	Cia,nc
67-64-1	Acetone	Yes	Yes	Yes	Yes	1.4E+04	NC	4.5E+05	1.2E+07	--	7.23E+08	1.13E+09	19.4	2.6	E			3.10E+01	A			
71-43-2	Benzene	Yes	Yes	Yes	Yes	1.3E+01	NC	4.4E+02	7.5E+01	No (5)	3.98E+08	3.13E+08	19.4	1.2	N	7.80E-06	I	3.00E-02	I		1.6E+01	1.4E+04
75-15-0	Carbon Disulfide	Yes	Yes	Yes	Yes	3.1E+02	NC	1.0E+04	6.4E+02		1.47E+09	1.03E+09	19.4	1.3	N			7.00E-01	I		3.1E+02	3.1E+02
67-66-3	Chloroform	Yes	Yes	Yes	Yes	5.3E+00	C	1.8E+02	4.5E+01	Yes (8.0E+01(F)	1.27E+09	9.37E+08	19.4		N	2.30E-05	I	9.80E-02	A		5.3E+00	4.3E+01
75-34-3	Dichloroethane, 1,1-	Yes	Yes	Yes	Yes	7.7E+01	C	2.6E+03	4.2E+02		1.21E+09	9.13E+08	19.4	5.4	N	1.60E-06	CA				7.7E+01	
75-35-4	Dichloroethylene, 1,1-	Yes	Yes	Yes	Yes	8.8E+01	NC	2.9E+03	1.0E+02	No (7)	3.13E+09	2.10E+09	19.4	6.5	N			2.00E-01	I			8.8E+01
156-59-2	Dichloroethylene, 1,2-cis-	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info										M							
156-60-5	Dichloroethylene, 1,2-trans-	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info						1.73E+09	1.38E+09	19.4	9.7	M							
141-78-6	Ethyl Acetate	Yes	Yes	Yes	Yes	3.1E+01	NC	1.0E+03	7.4E+03	--	4.42E+08	3.33E+08	19.4	2	N			7.00E-02	P			3.1E+01
100-41-4	Ethylbenzene	Yes	Yes	Yes	Yes	4.9E+01	C	1.6E+03	2.1E+02	Yes (700)	5.48E+07	3.93E+07	19.4	0.8	N	2.50E-06	CA	1.00E+00	I		4.9E+01	4.4E+02
67-63-0	Isopropanol	Yes	Yes	Yes	Yes	8.8E+01	NC	2.9E+03	4.0E+05	--	1.47E+08	2.21E+08	19.4	2	N			2.00E-01	P			8.8E+01
78-93-3	Methyl Ethyl Ketone (2-Butanone)	Yes	Yes	Yes	Yes	2.2E+03	NC	7.3E+04	1.2E+06	--	3.52E+08	3.97E+08	19.4	1.4	N			5.00E+00	I			2.2E+03
127-18-4	Tetrachloroethylene	Yes	Yes	Yes	Yes	1.8E+01	NC	5.8E+02	3.3E+01	No (5)	1.65E+08	1.10E+08	19.4		N	2.60E-07	I	4.00E-02	I		4.7E+02	1.8E+01
109-99-9	Tetrahydrofuran	Yes	Yes	Yes	Yes	8.8E+02	NC	2.9E+04	3.9E+05	--	6.29E+08	2.25E+09	19.4	2	N			2.00E+00	I			8.8E+02
108-88-3	Toluene	Yes	Yes	Yes	Yes	2.2E+03	NC	7.3E+04	1.1E+04	No (1000)	1.41E+08	1.07E+08	19.4	1.1	N			5.00E+00	I			2.2E+03
76-13-1	Trichloro-1,2,2-trifluoroethane, 1,1,2-	Yes	Yes	Yes	Yes	1.3E+04	NC	4.4E+05	7.6E+02	--	3.65E+09	2.93E+09	19.4		N			3.00E+01	H			1.3E+04
71-55-6	Trichloroethane, 1,1,1-	Yes	Yes	Yes	Yes	2.2E+03	NC	7.3E+04	4.0E+03	No (200)	8.90E+08	7.05E+08	19.4	7.5	N			5.00E+00	I			2.2E+03
79-00-5	Trichloroethane, 1,1,2-	Yes	Yes	Yes	Yes	8.8E-02	NC	2.9E+00	3.5E+00	Yes (5)	1.65E+08	1.14E+08	19.4	6	N	1.60E-05	I	2.00E-04	X		7.7E+00	8.8E-02
79-01-6	Trichloroethylene	Yes	Yes	Yes	Yes	8.8E-01	NC	2.9E+01	2.9E+00	Yes (5)	4.88E+08	3.92E+08	19.4	8	N	see note	I	2.00E-03	I	TCE	3.0E+01	8.8E-01
75-69-4	Trichlorofluoromethane	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info																	
95-63-6	Trimethylbenzene, 1,2,4-	Yes	Yes	Yes	Yes	3.1E+00	NC	1.0E+02	1.8E+01	--	1.36E+07	9.87E+06	19.4	0.9	N			7.00E-03	P			3.1E+00
75-01-4	Vinyl Chloride	Yes	Yes	Yes	Yes	2.8E+01	C	9.3E+02	2.9E+01	No (2)	1.00E+10	8.54E+09	19.4	3.6	N	4.40E-06	I	1.00E-01	I	VC	2.8E+01	4.4E+01
108-38-3	Xylene, m-	Yes	Yes	Yes	Yes	4.4E+01	NC	1.5E+03	2.1E+02	--	4.74E+07	3.40E+07	19.4	1.1	N			1.00E-01	S			4.4E+01
95-47-6	Xylene, o-	Yes	Yes	Yes	Yes	4.4E+01	NC	1.5E+03	2.9E+02	--	3.78E+07	2.71E+07	19.4	0.9	N			1.00E-01	S			4.4E+01
106-42-3	Xylene, p-	Yes	Yes	Yes	Yes	1.5E+03	NC	1.5E+03	2.2E+02	--	5.05E+07	3.29E+07	19.4	1	N			1.00E-01	S			4.4E+01
1330-20-7	Xylenes	Yes	Yes	Yes	Yes	4.4E+01	NC	1.5E+03	2.2E+02	Yes (10000)	4.56E+07	2.07E+07	19.4		N			1.00E-01	I			4.4E+01

Notes:

- (1)

Inhalation Pathway Exposure Parameters (RME):
Exposure Scenario
Averaging time for carcinogens
Averaging time for non-carcinogens
Exposure duration
Exposure frequency
Exposure time

Units
(yrs)
(yrs)
(yrs)
(days/yr)
(hr/day)

Residential		Commercial		Selected (based on scenario in cell G10)	
Symbol	Value	Symbol	Value	Symbol	Value
ATc_R	70	ATc_C	70	ATc	70
ATnc_R	26	ATnc_C	25	ATnc	25
ED_R	26	ED_C	25	ED	25
EF_R	350	EF_C	250	EF	250
ET_R	24	ET_C	8	ET	8
- (2)

Generic Attenuation Factors:
Source Medium of Vapors
Groundwater
Sub-Slab and Exterior Soil Gas

(-)
(-)

Residential		Commercial		Selected (based on scenario in cell G10)	
Symbol	Value	Symbol	Value	Symbol	Value
AFgw_R	0.001	AFgw_C	0.001	AFgw	0.001
AFss_R	0.03	AFss_C	0.03	AFss	0.03
- (3)

Formulas
Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RFC x (1000 ug/mg) / (ED x EF x ET)
- (4)

Special Case Chemicals
Trichloroethylene

Residential		Commercial		Selected (based on scenario in cell G10)	
Symbol	Value	Symbol	Value	Symbol	Value
mIURTCE_R	1.00E-06	mIURTCE_C	0.00E+00	mIURTCE	0.00E+00
IURTCE_R	3.10E-06	IURTCE_C	4.10E-06	IURTCE	4.10E-06

Mutagenic Chemicals

The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration (years)	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 26 years	10	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25

This factor is used in the equations for mutagenic chemicals.

See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:
NVT = Not sufficiently volatile and/or toxic to pose inhalation risk in selected exposure scenario for the indicated medium
C = Carcinogenic
NC = Non-carcinogenic
I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: <http://www.epa.gov/iris/subst/index.html>
P = PPRTV: EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: <http://hhpprtv.ornl.gov/pprtv.shtm>
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: <http://www.atsdr.cdc.gov/mrls/index.html>
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: <http://www.oehha.ca.gov/risk/ChemicalDB/index.asp>
H = HEAST: EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: <http://epa-heast.ornl.gov/heast.shtml>
S = See RSL User Guide, Section 5
X = PPRTV Appendix
E = The Engineering ToolBox. Available online at http://www.engineeringtoolbox.com/explosive-concentration-limits-d_423.html
N = Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH). Pocket Guide to Chemical Hazards. Available online at: <http://www.cdc.gov/niosh/npg/default.html>
M = Chemical-specific MSDS
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
**Lower explosive limit is the minimum concentration of the compound in air (% by volume) that is needed for the gas to ignite and explode.



Attachment C Professional Certification

Professional Certification

I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer / professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors / Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Andrew P. Romanek

Andrew P. Romanek, P.E.
Associate
CDM Smith



3/13/17

Date

Summary of Oversight Provided by Georgia Licensed Engineers and Geologists

Engineer / Geologist	License Type and No.	Week Ending Date	Number of Hours	Description of Hours
Tom Duffey	Geologist PG000899	1/21/17	1.5	Senior hydrogeologist and technical lead for Voluntary Remediation Plan development
		2/4/17	5	
		2/11/17	8	
		2/18/17	4	
		2/25/17	2	
John Reichling	Engineer PE017367	1/28/17	1	CDM Smith Officer in Charge and person overall responsible for project execution and quality
		2/4/17	1	
		2/25/17	1	
Andrew Romanek	Engineer PE029287	9/10/16	0.5	Project manager and CDM Smith primary point of contact. Involved in all aspects of the project, including SVE design, SVE installation, and Voluntary Remediation Plan development.
		9/17/16	1	
		9/24/16	0.5	
		10/1/16	2	
		10/8/16	2	
		10/15/16	1	
		10/22/16	0.5	
		10/29/16	2	
		11/5/16	2	
		11/12/16	1	
		11/19/16	0.5	
		11/26/16	3	
		12/3/16	1	
		12/10/16	0.5	
		12/17/16	0.5	
		12/24/16	1	
		1/7/17	0.5	
		1/14/17	2.5	
		1/21/17	1	
		1/28/17	1	
		2/4/17	1.5	
		2/11/17	1	
		2/18/17	2	
		2/25/17	1	
		2/28/17	0.5	
Jeff Weeber	Engineer PE032278	9/17/16	2	Design engineer, including SVE system and associated troubleshooting
		9/24/16	2.5	
		10/1/16	3.5	
		10/8/16	1.5	
		10/15/16	1	
		10/22/16	1.5	
		10/29/16	0.5	
		11/19/16	3	
		11/26/16	0.5	
		12/3/16	4	
		1/14/17	2.5	
		2/4/17	2	
		2/11/17	2.5	
		2/18/17	3	