

Technical Memorandum

To: Andrea Scheele (Kiewit)
From: Vance Atkins, LG, LHG (OSG)
CC: Scott Darst (OSG)
Date: May 22, 2020
Project: Sound Transit Federal Way Link Extension (F200)
Subject: FL358 – Supplemental Investigation

OSG conducted a supplemental soil and groundwater investigation at the site in April and May, 2020. The investigation included: 1) sampling of existing wells to assess current groundwater conditions; 2) advancing soil borings at the site to further delineate soil and groundwater conditions and; 3) soil and groundwater samples were placed in a chilled cooler and transported under chain of custody protocol for analysis by a Washington Department of Ecology-accredited analytical laboratory for chlorinated volatile organic compounds (VOCs) by EPA Method 8260/5035A.

SUBSURFACE INVESTIGATION

Soil borings were advanced at the site between May 7 and 11, 2020. Boring locations were selected to further delineate areas of known PCE and degradation products, as well as investigate current soil and groundwater conditions underlying the former tenant space, which was made accessible by recent building demolition.

Borings were completed to a maximum depth of 25 feet below ground surface using a hollow-stem drilling rig. Soil samples were collected at 2.5- to 5-foot intervals, with soil samples selected for analysis based on prior detections, groundwater occurrence, and field screening. Shallow (5 foot) soil samples were also analyzed from borings completed in and adjacent to the tenant space to assess soil conditions near the original source area. Borings were backfilled, sealed, and patched according to Ecology's well drilling regulations. Supplemental samples were analyzed to further delineate the vertical extent of detections. Boring logs are included as Attachment A.

Boring 358-B1 was advanced adjacent to a sewer line and vault on the east side of the former tenant space. Boring 358-B2 was advanced in an assumed upgradient position from the tenant space, as well as within an area of future subsurface construction (elevated rail piers). Borings 358-B3 and 358-B4 were completed north of the tenant space and were intended to delineate a PCE exceedance previously detected in GeoEngineers boring FL358-B1. Borings 358-B5 through 358-B9 were completed within and

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west of the former tenant space to delineate residual solvent concentrations and to assess the sub-floor soil conditions after the 1990s soil remedial actions. Boring locations are attached as Figure 1.

SUBSURFACE OBSERVATIONS AND FIELD SCREENING

Soils at the site consisted of sandy fill soils (up to three feet) underlying the existing paved or concrete surface. Native soils underlying the fill were comprised of silty sands with occurrences of peat and organic silt to a depth of approximately seven to ten feet. Deeper soils were comprised of dense silty sands and sandy silts to depths of up to 20 feet. Sand with silt and gravel was encountered in most borings below the finer-grained soils at depths between 15 and 20 feet. Boring logs are included as Attachment A.

Groundwater was encountered during drilling at depths of ten to 16 feet. Water levels in temporary wells (discussed below) rose to approximately eight to ten feet below grade, indicating confined groundwater conditions at the site. While groundwater flow direction was not determined during this investigation, the calculated groundwater flow direction at the adjacent ARCO site is to the southwest (GeoEngineers, 2017).

All soil samples collected were field screened for indications of solvent contamination including solvent related odors or staining. Samples were also field screened with a photoionization detector (PID) to determine areas of potential contamination. No positive indications of contamination were encountered during field screening. Field screening results are recorded on the boring logs (Attachment A).

SOIL INVESTIGATION RESULTS

Soil sample results are summarized on Table 1 and Figure 1. Laboratory analytical reports are included as Attachment B.

VOCs were not detected at laboratory reporting limits in samples collected from borings 358-B1 and 358-B2. Exceedances of PCE and TCE were detected in samples collected from boring 358-B3, completed west of GeoEngineers boring FL358-B1. The detections were at a comparable elevation to the GeoEngineers boring, indicating potential migration along a utility or subsurface feature. VOCs were not detected in boring 358-B4, completed east of FL358-B1. Of the borings completed within or adjacent west of the former tenant space, only samples collected at boring 358-B5 exceeded the MTCA cleanup level for PCE. These detections were between 20 and 25 feet below ground surface. This boring was completed near the original release location, and detection may be attributed to DNAPL migration. Significant detections of VOCs were not identified in shallow (5-foot) samples collected below the former tenant space, indicating that the former remedial system reduced soil impacts underlying the tenant space. Boring 358-

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B8 was advanced near the former AGRA boring B4, and in the vicinity of several drains or floor penetrations. Only Cis-1,2-DCE was detected in this boring, indicating that the soils at the B4 location have likely undergone additional natural degradation. Likewise, samples collected from assumed downgradient (west) borings either did not detect VOCs, or detected VOCs were degradation products well below the cleanup level.

GROUNDWATER INVESTIGATION RESULTS

Groundwater sample results are summarized on Table 2 and Figure 2. Laboratory analytical reports are included as Attachment B.

The existing wells were sampled on April 29, 2020. Groundwater samples were collected in general accordance with United States Environmental Protection Agency (USEPA, 2017) low-flow groundwater sampling guidelines.

PCE and its breakdown products were not detected at laboratory reporting limits in samples collected from the monitoring wells.

Groundwater samples were also collected from selected borings during the subsurface investigation to assess current groundwater conditions below and adjacent to the former tenant space. Temporary screens were installed in the borings and the water levels allowed to stabilize prior to sampling. Groundwater samples were collected in general accordance with United States Environmental Protection Agency (USEPA, 2017) low-flow groundwater sampling guidelines. Borings were backfilled, sealed, and patched according to Ecology's well drilling regulations. No permanent groundwater monitoring wells were installed.

Groundwater exceedances for PCE and its degradation products were detected in borings 358-B3 and 358-B5, where PCE was also detected in one or more soil samples. PCE and its degradation products were also detected in borings 358-B6 and 358-B7, located to the west (assumed downgradient) of the former tenant space.

CONCLUSIONS

Based on the findings of the supplemental remedial investigation, exceedances of PCE in soil appear to be centralized along the north side of the former dry cleaner tenant space at depths of approximately 10 to 20 feet below existing grade, and underlying the former tenant space at depths of 20 to over 25 feet.

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These detections appear consistent with contaminant transport along either utilities or low permeability soils to the north, and vertical migration of PCE through groundwater below the former source area.

Groundwater exceedances of PCE and degradation products were identified from the north side of the former tenant space and trending southwest under and to the west of the tenant space. These detections are relatively consistent with detections of PCE in soil, and the migration appears consistent with a southwesterly groundwater flow direction.

Attachments:

Figure 1: Site Specific Soil Sample Results

Figure 2: Site Specific Groundwater Sample Results

Table 1: Soil Analytical Results

Table 2: Groundwater Analytical Results

Attachment A: Boring Logs

Attachment B: Analytical Laboratory Results



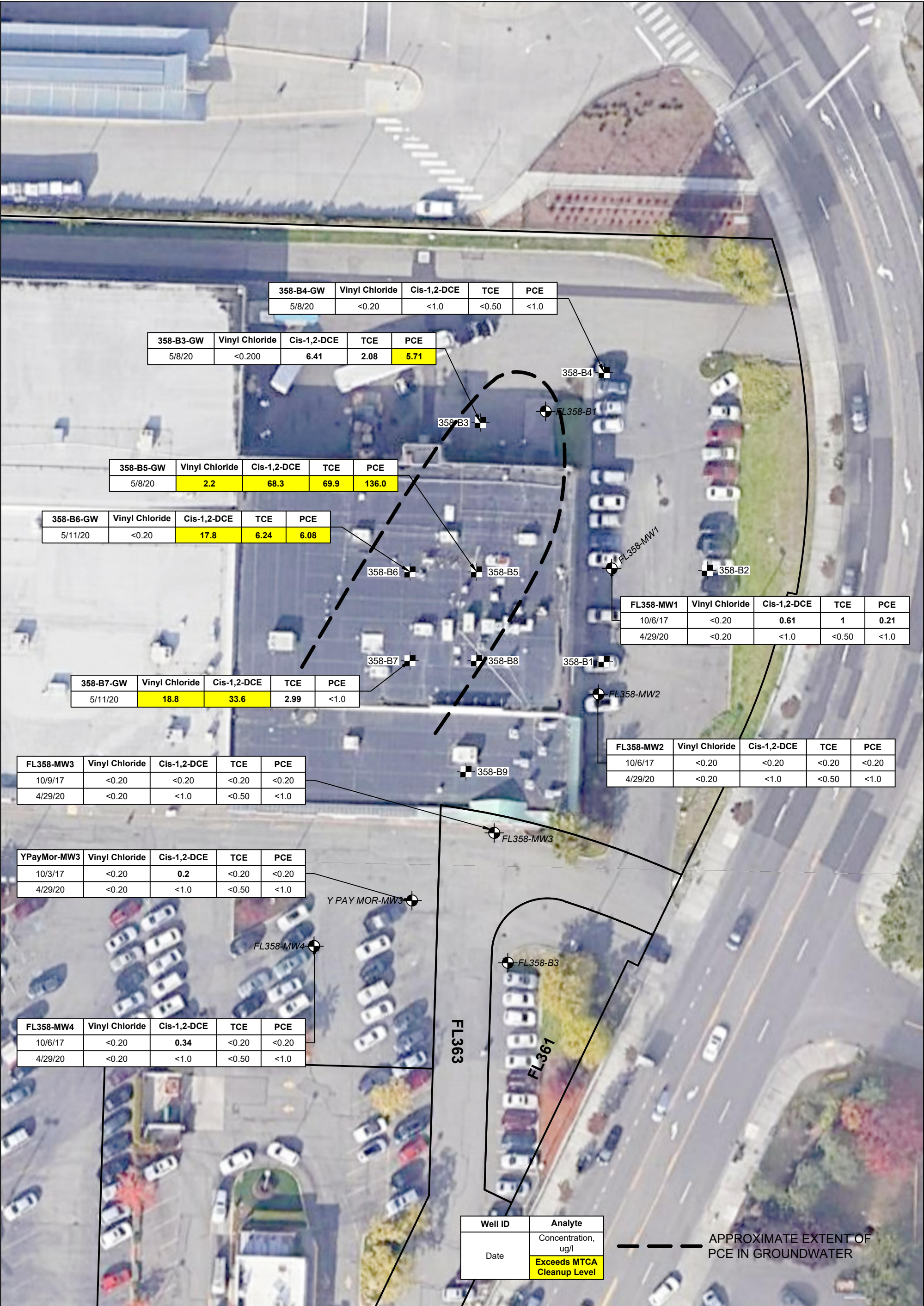


Table 1
Soil Analytical Results
Former Y Pay Mor Drycleaner
2200 S 320th St
Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth (ft bgs)	VOCs ¹ (mg/kg)		
				Cis-1,2-DCE	TCE	PCE
94081902	11/16/94	B3/S1	4-5	0.11	<0.1	<0.1
94081902	11/16/94	B4/S1	5-6.5	0.33	<0.1	1.3
94081902	11/16/94	B5/S1	6.5-8	71	<0.1	<0.1
94081902	11/16/94	B7/S1	4-5	0.75	<0.1	<0.1
1710-072	10/5/17	FL358-B1-5-6	5-6	0.0053	<0.00097	<0.00097
1710-072	10/5/17	FL358-B1-10-11	10-11	0.014	0.0076	0.016
1710-072	10/5/17	FL358-B1-13-14	13-14	0.0043	0.0022	0.066
1710-010	10/2/17	FL358-MW1-19-20	19-20	0.0016	0.0033	0.0049
2005069	5/7/20	358-B1-10	10-11	<0.0224	<0.0224	<0.0280
2005069	5/7/20	358-B1-20	20-20.5	<0.0179	<0.0179	<0.0224
2005069	5/7/20	358-B2-12.5	12-13	<0.0253	<0.0253	<0.0317
2005069	5/7/20	358-B2-25	25-25.5	<0.0238	<0.0238	<0.0297
2005069	5/7/20	358-B3-10	10-11	<0.0204	<0.0204	<0.0254
2005069	5/7/20	358-B3-12.5	12-13.5	0.0235	<0.0196	0.083
2005069	5/7/20	358-B3-15	15-16.5	0.0669	0.0379	0.121
2005069	5/7/20	358-B3-20	20-20.5	<0.0189	<0.0189	0.0384
2005085	5/8/20	358-B4-15	15-16	<0.0275	<0.0275	<0.0344
2005085	5/8/20	358-B4-20	20-21.5	<0.0235	<0.0235	<0.0294
2005085	5/8/20	358-B5-5	5-6.5	0.081	<0.0257	<0.0321
2005085	5/8/20	358-B5-10	10-11.5	<0.0225	<0.0225	<0.0281
2005085	5/8/20	358-B5-15	15-16.5	<0.0220	<0.0220	<0.0275
2005085	5/8/20	358-B5-20	20-21	<0.0188	<0.0188	0.358
2005085	5/8/20	358-B5-25	25-25.5	<0.0236	<0.0236	0.123
2005085	5/8/20	358-B6-5	5-6.5	0.0949	<0.0316	<0.0395
2005085	5/8/20	358-B6-10	10-11.5	<0.0187	<0.0187	<0.0233
2005085	5/8/20	358-B6-20	20-20.5	<0.0197	<0.0197	0.0269
2005098	5/11/20	358-B7-5	5-6.5	0.0509	<0.0185	0.0438
2005098	5/11/20	358-B7-10	10-11	<0.0174	<0.0174	<0.0218
2005098	5/11/20	358-B7-20	20-21	0.0245	<0.0170	<0.0213
2005098	5/11/20	358-B8-5	5-6.5	0.205	<0.0265	<0.0331
2005098	5/11/20	358-B8-12.5	12.5-13	<0.0199	<0.0199	<0.0249
2005098	5/11/20	358-B8-20	20-20.5	<0.0244	<0.0244	<0.0305
2005098	5/11/20	358-B9-7.5	7.5-9	<0.00989	<0.00989	<0.0124
2005098	5/11/20	358-B9-12.5	12.5-13.5	<0.0175	<0.0175	<0.0219
2005098	5/11/20	358-B9-20	20-20.5	<0.0221	<0.0221	<0.0276
MTCA Method A Soil Cleanup Level, Unrestricted (Ecology, 2013)					0.03	0.05
MTCA Method B Soil Cleanup Level (Ecology, 2015)				160	40	476.19
WAC 173-303 Dangerous Waste Limit (mg/l, TCLP Methodology)				n/a	0.5	0.7
WAC 173-303 Dangerous Waste Screening (mg/kg, 20 times TCLP limit)				n/a	10	14
EPA Land Disposal Restriction Limit, mg/kg				n/a	60	60

Notes:

< - Not detected at listed laboratory reporting limit

Bold - Analyte detected

Bold/Highlighted - Concentration exceeds MTCA Method A Cleanup Level for soil

1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.

Table 2
 Groundwater Analytical Results
 Former Y Pay Mor Drycleaner
 2210 S 320th St
 Federal Way, Washington

Lab Report ID	Date	Sample ID	Depth to Water (ft below TOC)	Field Parameters				VOCs (ug/l)			
				Temp (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity (mS/cm)				
								Vinyl Chloride	Cis-1,2-DCE	TCE	PCE
1710-083	10/6/17	FL358-MW1	NA	NA	NA	NA	NA	<0.20	0.61	1	0.21
2004413	4/29/20		6.61	13.2	5.94	0.09	545	<0.20	<1.0	<0.50	<1.0
1710-083	10/6/17	FL358-MW2	NA	NA	NA	NA	NA	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20		6.0	13.5	5.34	0.22	447	<0.20	<1.0	<0.50	<1.0
1710-105	10/9/17	FL358-MW3	NA	NA	NA	NA	NA	<0.20	<0.20	<0.20	<0.20
2004413	4/29/20		7.4	14.1	59	0.15	503	<0.20	<1.0	<0.50	<1.0
1710-083	10/6/17	FL358-MW4	NA	NA	NA	NA	NA	<0.20	0.34	<0.20	<0.20
2004413	4/29/20		8.98	13.5	5.79	0.19	610	<0.20	<1.0	<0.50	<1.0
1710-031	10/3/17	YPayMor-MW3	NA	NA	NA	NA	NA	<0.20	0.2	<0.20	<0.20
2004413	4/29/20		7.0	14.1	5.87	0.13	517	<0.20	<1.0	<0.50	<1.0
2005086	5/8/20	358-B3-GW	9.8	13	6.42	6.26	714	<0.200	6.41	2.08	5.71
2005086	5/8/20	358-B4-GW	8.1	14.4	6.58	5.7	1750	<0.20	<1.0	<0.50	<1.0
2005086	5/8/20	358-B5-GW	9.3	16.5	6.93	6.61	2406	2.2	68.3	69.9	136
2005099	5/11/20	358-B6-GW	8.8	15.7	6.07	0.3	1422	<0.20	17.8	6.24	6.08
2005099	5/11/20	358-B7-GW	8.9	17.7	5.91	1.15	901	18.8	33.6	2.99	<1.0
MTCA Method A or B Cleanup Level (mg/l)								0.2	16 (B)	5	5

Notes:

< - Not detected at listed laboratory reporting limit

Bold - Analyte detected

Bold/Highlighted - Analyte exceeds MTCA Method A or B cleanup level

1 - Samples analyzed for VOCs by EPA Method 8260. See laboratory report for complete list.

Attachment A: Soil Boring Logs

LOGGED BY: V. ATKINS

LOGGED BY: V. ATKINS

LOGGED BY: V. ATKINS

LOGGED BY: V. ATKINS

LOCATION OF BORING:							PROJECT NO:	2021	CLIENT:	KIEWIT	BORING NO:	358-B5						
							DRILLING METHOD:					CME75 HSA	SHEET:	1	OF	1		
							SAMPLING METHOD:									DAMES & MOORE/140# HAMMER		
							WATER LEVEL:		15'	9.3'		DRILLING						
							TIME					START	FINISH					
							DATE		5/8/2020	5/8/2020								
							CASING DEPTH											
SAMPLE TYPE / SAMPLE NO.	INCHES DRIVEN / RECOVERED	SAMPLE DEPTH INTERVAL	BLOWS PER 6 INCHES	PID (PPM)	DEPTH IN FEET	LITHOLOGY	SURFACE CONDITIONS:							GROUNDWATER / WELL DIAGRAM				
							ELEVATION:											
							SOIL DESCRIPTION											
					5	SP	CONCRETE							▼ ▽				
	18/18		32/15/20	0			BROWN SAND WITH SILT AND GRAVEL (FILL)											
					SM	DENSE GRAY-BROWN SILTY SAND WITH GAVEL, MOIST. NO ODOR OR STAINING												
	18/18		18/19/18	0	SM/OL	MEDIUM DENSE BROWNISH YELLOW SAND WITH SILT AND GRAVEL, MOIST. GRADING DARK RED-BROWN PEAT/ORGANIC SILT												
	18/18		13/8/14	0		INTERBEDDED SAND WITH SILT AND PEAT, TRACE GRAVEL, WET. NO ODOR OR STAINING												
					SM													
	18/18		19/25/27	0		DENSE GRAY-BROWN SILTY SAND WITH GRAVEL, WET. NO ODOR OR STAINING												
	6/6		30-6"	0		DENSE GRAY-BROWN SILTY SAND WITH GRAVEL, WET. NO ODOR OR STAINING, VERY DENSE												
	18/18		12/27/32	0	ML	GRADING VERY STIFF GRAY-BROWN MOTTLED SILT WITH SAND AND GRAVEL, WET. NO ODOR OR STAINING.												
	12/12		24/50-6"	0	GM/ML	GRADING HARD GRAY-BROWN MOTTLED SILT WITH SAND AND GRAVEL, WET. NO ODOR OR STAINING, VERY STIFF, WITH OXIDATION.												
			50/4"	0	GM/ML	VERY DENSE GRAY GRAVELLY SILT, WET. NO ODOR OR STAINING												
					GM/ML	TEMPORARY SCREEN 15-25'												

LOGGED BY: V. ATKINS

LOGGED BY: V. ATKINS DATE: 5/7/20 CHECKED BY: DRILLING CONTRACTOR: CASCADE

LOGGED BY: V. ATKINS

LOGGED BY: V. ATKINS

Attachment B:
Analytical Laboratory Reports



Fremont
Analytical

3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

O'Neill Service Group

Vance Atkins

17619 NE 67th Court, Suite 100

Redmond, WA 98052

RE: F200

Work Order Number: 2004413

May 07, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 6 sample(s) on 4/29/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2004413

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2004413-001	FL358-MW4	04/29/2020 10:05 AM	04/29/2020 4:24 PM
2004413-002	YPM4-MW3	04/29/2020 10:40 AM	04/29/2020 4:24 PM
2004413-003	FL358-MW3	04/29/2020 11:25 AM	04/29/2020 4:24 PM
2004413-004	FL358-MW2	04/29/2020 12:05 PM	04/29/2020 4:24 PM
2004413-005	FL358-MW1	04/29/2020 12:40 PM	04/29/2020 4:24 PM
2004413-006	Trip Blank	04/27/2020 3:20 PM	04/29/2020 4:24 PM

CLIENT: O'Neill Service Group**Project:** F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-001

Collection Date: 4/29/2020 10:05:00 AM

Client Sample ID: FL358-MW4

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 7:45:10 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 7:45:10 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 7:45:10 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 7:45:10 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 7:45:10 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 7:45:10 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:45:10 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 7:45:10 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 7:45:10 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 7:45:10 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 7:45:10 PM
Surr: Dibromofluoromethane	94.1	81.1 - 118	%Rec	1	5/6/2020 7:45:10 PM
Surr: Toluene-d8	98.6	85.7 - 113	%Rec	1	5/6/2020 7:45:10 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	84.2 - 111	%Rec	1	5/6/2020 7:45:10 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-002

Collection Date: 4/29/2020 10:40:00 AM

Client Sample ID: YPM4-MW3

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 8:15:22 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 8:15:22 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 8:15:22 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 8:15:22 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 8:15:22 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 8:15:22 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:15:22 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 8:15:22 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 8:15:22 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 8:15:22 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 8:15:22 PM
Surr: Dibromofluoromethane	93.6	81.1 - 118	%Rec	1	5/6/2020 8:15:22 PM
Surr: Toluene-d8	99.0	85.7 - 113	%Rec	1	5/6/2020 8:15:22 PM
Surr: 1-Bromo-4-fluorobenzene	97.9	84.2 - 111	%Rec	1	5/6/2020 8:15:22 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-003

Collection Date: 4/29/2020 11:25:00 AM

Client Sample ID: FL358-MW3

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 8:45:34 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 8:45:34 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 8:45:34 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 8:45:34 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 8:45:34 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 8:45:34 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 8:45:34 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 8:45:34 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 8:45:34 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 8:45:34 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 8:45:34 PM
Surr: Dibromofluoromethane	94.6	81.1 - 118	%Rec	1	5/6/2020 8:45:34 PM
Surr: Toluene-d8	99.7	85.7 - 113	%Rec	1	5/6/2020 8:45:34 PM
Surr: 1-Bromo-4-fluorobenzene	97.4	84.2 - 111	%Rec	1	5/6/2020 8:45:34 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-004

Collection Date: 4/29/2020 12:05:00 PM

Client Sample ID: FL358-MW2

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 9:15:51 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 9:15:51 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 9:15:51 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 9:15:51 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 9:15:51 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 9:15:51 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:15:51 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 9:15:51 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 9:15:51 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 9:15:51 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 9:15:51 PM
Surr: Dibromofluoromethane	94.7	81.1 - 118	%Rec	1	5/6/2020 9:15:51 PM
Surr: Toluene-d8	99.0	85.7 - 113	%Rec	1	5/6/2020 9:15:51 PM
Surr: 1-Bromo-4-fluorobenzene	98.3	84.2 - 111	%Rec	1	5/6/2020 9:15:51 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-005

Collection Date: 4/29/2020 12:40:00 PM

Client Sample ID: FL358-MW1

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 9:46:08 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 9:46:08 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 9:46:08 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 9:46:08 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 9:46:08 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 9:46:08 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 9:46:08 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 9:46:08 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 9:46:08 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 9:46:08 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 9:46:08 PM
Surr: Dibromofluoromethane	94.1	81.1 - 118	%Rec	1	5/6/2020 9:46:08 PM
Surr: Toluene-d8	99.8	85.7 - 113	%Rec	1	5/6/2020 9:46:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.9	84.2 - 111	%Rec	1	5/6/2020 9:46:08 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Analytical Report

Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Lab ID: 2004413-006

Collection Date: 4/27/2020 3:20:00 PM

Client Sample ID: Trip Blank

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00	Q	µg/L	1	5/6/2020 7:14:54 PM
Chloromethane	ND	2.00	Q	µg/L	1	5/6/2020 7:14:54 PM
Vinyl chloride	ND	0.200		µg/L	1	5/6/2020 7:14:54 PM
Bromomethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Chloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Methylene chloride	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Chloroform	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Dibromomethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/6/2020 7:14:54 PM
Chlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromoform	ND	2.00		µg/L	1	5/6/2020 7:14:54 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
Bromobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/6/2020 7:14:54 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/6/2020 7:14:54 PM



Work Order: 2004413

Date Reported: 5/7/2020

CLIENT: O'Neill Service Group

Project: F200

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28248

Analyst: CR

1,2-Dichlorobenzene	ND	1.00	µg/L	1	5/6/2020 7:14:54 PM
1,2-Dibromo-3-chloropropane	ND	1.00	µg/L	1	5/6/2020 7:14:54 PM
Hexachloro-1,3-butadiene	ND	4.00	µg/L	1	5/6/2020 7:14:54 PM
1,2,3-Trichlorobenzene	ND	4.00	µg/L	1	5/6/2020 7:14:54 PM
Surr: Dibromofluoromethane	96.4	81.1 - 118	%Rec	1	5/6/2020 7:14:54 PM
Surr: Toluene-d8	98.6	85.7 - 113	%Rec	1	5/6/2020 7:14:54 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	84.2 - 111	%Rec	1	5/6/2020 7:14:54 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Date: 5/7/2020

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28248	SampType: LCS	Units: µg/L			Prep Date: 5/6/2020			RunNo: 59035			
Client ID: LCSW	Batch ID: 28248	Analysis Date: 5/6/2020							SeqNo: 1179490		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.4	1.00	20.00	0	81.8	14.5	175				
Chloromethane	17.5	2.00	20.00	0	87.4	44.8	153				
Vinyl chloride	19.0	0.200	20.00	0	95.2	64.1	131				
Bromomethane	19.6	1.00	20.00	0	97.9	34.2	171				
Trichlorofluoromethane (CFC-11)	20.0	1.00	20.00	0	99.8	77.4	121				
Chloroethane	19.6	1.00	20.00	0	98.1	73.3	123				
1,1-Dichloroethene	20.1	1.00	20.00	0	101	81.8	116				
Acetone	49.2	5.00	50.00	0	98.4	47.6	157				
Methylene chloride	19.7	1.00	20.00	0	98.6	80.4	116				
trans-1,2-Dichloroethene	20.0	1.00	20.00	0	100	83.1	115				
1,1-Dichloroethane	19.8	1.00	20.00	0	99.0	79.5	119				
cis-1,2-Dichloroethene	20.1	1.00	20.00	0	101	83.5	115				
Chloroform	20.2	1.00	20.00	0	101	81	117				
1,1,1-Trichloroethane (TCA)	20.2	1.00	20.00	0	101	82.8	116				
1,1-Dichloropropene	20.0	1.00	20.00	0	99.8	81.5	117				
Carbon tetrachloride	20.1	1.00	20.00	0	100	83.3	114				
1,2-Dichloroethane (EDC)	20.0	1.00	20.00	0	100	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	19.9	1.00	20.00	0	99.7	78	120				
Bromodichloromethane	19.7	1.00	20.00	0	98.7	80.9	116				
Dibromomethane	20.3	1.00	20.00	0	102	80	117				
cis-1,3-Dichloropropene	20.4	1.00	20.00	0	102	79.8	118				
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	103	75.8	122				
1,1,2-Trichloroethane	20.6	1.00	20.00	0	103	77.8	120				
1,3-Dichloropropane	20.5	1.00	20.00	0	102	76.5	121				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	86.2	114				
Dibromochloromethane	20.3	1.00	20.00	0	101	78	117				
1,2-Dibromoethane (EDB)	20.6	0.250	20.00	0	103	76.8	120				
Chlorobenzene	20.0	1.00	20.00	0	100	85.2	112				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0	100	85.5	110				
Bromoform	19.8	2.00	20.00	0	99.2	73.4	119				

Work Order: 2004413

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28248	SampType: LCS	Units: µg/L				Prep Date: 5/6/2020			RunNo: 59035		
Client ID: LCSW	Batch ID: 28248	Analysis Date: 5/6/2020						SeqNo: 1179490			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	20.6	1.00	20.00	0	103	74.8	124				
Bromobenzene	19.8	1.00	20.00	0	99.0	83.2	116				
2-Chlorotoluene	20.0	1.00	20.00	0	100	81.8	119				
4-Chlorotoluene	19.9	1.00	20.00	0	99.4	81.6	118				
1,2,3-Trichloropropane	20.2	1.00	20.00	0	101	73.2	126				
1,2,4-Trichlorobenzene	21.1	2.00	20.00	0	106	68.7	138				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	104	90.7	114				
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	114				
1,2-Dichlorobenzene	20.9	1.00	20.00	0	105	90.1	115				
1,2-Dibromo-3-chloropropane	20.7	1.00	20.00	0	104	54.8	147				
Hexachloro-1,3-butadiene	21.7	4.00	20.00	0	108	73.6	134				
1,2,3-Trichlorobenzene	21.5	4.00	20.00	0	107	57.1	150				
Surr: Dibromofluoromethane	25.4		25.00		102	81.1	118				
Surr: Toluene-d8	24.8		25.00		99.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.4		25.00		102	84.2	111				

Sample ID: LCSD-28248	SampType: LCSD	Units: µg/L				Prep Date: 5/6/2020			RunNo: 59035		
Client ID: LCSW02	Batch ID: 28248	Analysis Date: 5/6/2020							SeqNo: 1179491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.8	1.00	20.00	0	78.9	14.5	175	16.36	3.58	20	
Chloromethane	17.4	2.00	20.00	0	87.0	44.8	153	17.48	0.390	20	
Vinyl chloride	18.4	0.200	20.00	0	92.0	64.1	131	19.03	3.34	20	
Bromomethane	18.3	1.00	20.00	0	91.6	34.2	171	19.58	6.71	20	
Trichlorofluoromethane (CFC-11)	19.2	1.00	20.00	0	96.2	77.4	121	19.95	3.64	20	
Chloroethane	18.8	1.00	20.00	0	94.0	73.3	123	19.61	4.18	20	
1,1-Dichloroethene	19.3	1.00	20.00	0	96.6	81.8	116	20.14	4.21	20	
Acetone	52.5	5.00	50.00	0	105	47.6	157	49.20	6.57	20	
Methylene chloride	19.5	1.00	20.00	0	97.7	80.4	116	19.72	0.851	20	
trans-1,2-Dichloroethene	19.5	1.00	20.00	0	97.5	83.1	115	20.02	2.62	20	

Work Order: 2004413

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCSD-28248	SampType: LCSD	Units: µg/L				Prep Date: 5/6/2020			RunNo: 59035		
Client ID: LCSW02	Batch ID: 28248	Analysis Date: 5/6/2020							SeqNo: 1179491		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	19.4	1.00	20.00	0	97.1	79.5	119	19.81	1.96	20	
cis-1,2-Dichloroethene	19.4	1.00	20.00	0	97.2	83.5	115	20.11	3.42	20	
Chloroform	19.5	1.00	20.00	0	97.7	81	117	20.20	3.34	20	
1,1,1-Trichloroethane (TCA)	19.5	1.00	20.00	0	97.5	82.8	116	20.21	3.52	20	
1,1-Dichloropropene	19.4	1.00	20.00	0	97.0	81.5	117	19.95	2.79	20	
Carbon tetrachloride	19.3	1.00	20.00	0	96.5	83.3	114	20.07	3.88	20	
1,2-Dichloroethane (EDC)	19.5	1.00	20.00	0	97.6	78.4	118	20.04	2.67	20	
Trichloroethene (TCE)	19.3	0.500	20.00	0	96.5	82.2	116	20.27	4.93	20	
1,2-Dichloropropane	19.4	1.00	20.00	0	96.9	78	120	19.94	2.84	20	
Bromodichloromethane	19.1	1.00	20.00	0	95.5	80.9	116	19.73	3.26	20	
Dibromomethane	19.6	1.00	20.00	0	98.2	80	117	20.31	3.35	20	
cis-1,3-Dichloropropene	19.9	1.00	20.00	0	99.6	79.8	118	20.37	2.21	20	
trans-1,3-Dichloropropylene	20.0	1.00	20.00	0	100	75.8	122	20.53	2.61	20	
1,1,2-Trichloroethane	20.3	1.00	20.00	0	101	77.8	120	20.57	1.51	20	
1,3-Dichloropropane	20.1	1.00	20.00	0	100	76.5	121	20.50	2.11	20	
Tetrachloroethene (PCE)	19.8	1.00	20.00	0	99.1	86.2	114	20.76	4.61	20	
Dibromochloromethane	19.9	1.00	20.00	0	99.6	78	117	20.28	1.83	20	
1,2-Dibromoethane (EDB)	20.3	0.250	20.00	0	101	76.8	120	20.59	1.45	20	
Chlorobenzene	19.7	1.00	20.00	0	98.3	85.2	112	20.03	1.88	20	
1,1,1,2-Tetrachloroethane	19.4	1.00	20.00	0	97.2	85.5	110	20.02	2.92	20	
Bromoform	19.9	2.00	20.00	0	99.6	73.4	119	19.84	0.432	20	
1,1,2,2-Tetrachloroethane	20.5	1.00	20.00	0	102	74.8	124	20.64	0.717	20	
Bromobenzene	19.6	1.00	20.00	0	98.2	83.2	116	19.80	0.790	20	
2-Chlorotoluene	19.5	1.00	20.00	0	97.7	81.8	119	20.03	2.46	20	
4-Chlorotoluene	19.3	1.00	20.00	0	96.6	81.6	118	19.89	2.86	20	
1,2,3-Trichloropropane	20.0	1.00	20.00	0	100	73.2	126	20.19	0.923	20	
1,2,4-Trichlorobenzene	20.8	2.00	20.00	0	104	68.7	138	21.13	1.34	20	
1,3-Dichlorobenzene	20.4	1.00	20.00	0	102	90.7	114	20.86	2.43	20	
1,4-Dichlorobenzene	20.4	1.00	20.00	0	102	90.1	114	20.78	1.72	20	
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	115	20.95	0.834	20	
1,2-Dibromo-3-chloropropane	20.5	1.00	20.00	0	103	54.8	147	20.72	1.07	20	

Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCSD-28248	SampType: LCSD	Units: µg/L			Prep Date: 5/6/2020			RunNo: 59035			
Client ID: LCSW02	Batch ID: 28248				Analysis Date: 5/6/2020			SeqNo: 1179491			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	21.6	4.00	20.00	0	108	73.6	134	21.68	0.556	20	
1,2,3-Trichlorobenzene	21.7	4.00	20.00	0	109	57.1	150	21.46	1.18	20	
Surr: Dibromofluoromethane	25.1		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.6		25.00		98.5	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	84.2	111		0		

Sample ID: MB-28248	SampType: MBLK	Units: µg/L				Prep Date: 5/6/2020			RunNo: 59035		
Client ID: MBLKW	Batch ID: 28248	Analysis Date: 5/6/2020							SeqNo: 1179492		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									Q
Chloromethane	ND	2.00									Q
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Acetone	ND	5.00									
Methylene chloride	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									

Work Order: 2004413

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28248		SampType: MBLK		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: MBLKW		Batch ID: 28248					Analysis Date: 5/6/2020			SeqNo: 1179492	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.1		25.00		96.5	81.1	118				
Surr: Toluene-d8	24.9		25.00		99.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	24.4		25.00		97.7	84.2	111				

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria



Date: 5/7/2020

Work Order: 2004413
 CLIENT: O'Neill Service Group
 Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005033-002ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: BATCH		Batch ID: 28248					Analysis Date: 5/6/2020			SeqNo: 1179480	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	Q
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	0.776	0.200						0.7550	2.69	30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Acetone	29.2	5.00						31.06	6.12	30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	

Work Order: 2004413

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005033-002ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: BATCH		Batch ID: 28248					Analysis Date: 5/6/2020			SeqNo: 1179480	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		98.8	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.5		25.00		98.2	84.2	111		0		

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Sample ID: 2004412-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: BATCH		Batch ID: 28248		Analysis Date: 5/7/2020					SeqNo: 1179467		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	Q
Chloromethane	ND	2.00						0		30	Q
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Acetone	ND	5.00						0		30	
Methylene chloride	ND	1.00						0		30	



Work Order: 2004413
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2004412-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: BATCH		Batch ID: 28248		Analysis Date: 5/7/2020						SeqNo: 1179467	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	

Work Order: 2004413

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2004412-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/6/2020			RunNo: 59035		
Client ID: BATCH		Batch ID: 28248					Analysis Date: 5/7/2020			SeqNo: 1179467	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	23.3		25.00		93.2	81.1	118		0		
Surr: Toluene-d8	24.5		25.00		98.1	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	84.2	111		0		

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet established acceptance criteria

Client Name: **ONEILL**

 Work Order Number: **2004413**

 Logged by: **Carissa True**

 Date Received: **4/29/2020 4:24:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☒ No ☐ Not Required ☐
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☒ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	1.8
Sample 1	13.9
Temp Blank 1	12.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 4/24/20 Page: 1 of 1

Project Name: F200

Project No: F024

Collected by: Aerus

Location: FLS58

Report To (PM): Aerus

PM Email:

Laboratory Project No (Internal): 2004113

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client: COS

Address:

City, State, Zip:

Telephone:

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 FLS58-MW1	4/20/20	10:05	X														
2 FLS58-MW3		10:40	X														
3 FLS58-MW3		11:35															
4 FLS58-MW2		12:05															
5 FLS58-MW1		12:40															
6 TRAP Bore			X														
7																	
8																	
9																	
10																	

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time 4/20/20 1510

Relinquished Date/Time 4/20/20 1624

Received Date/Time 4/20/20 1624

Received Date/Time 4/20/20 1624

Same Day

3 Day

2 Day

Next Day

Turn-around Time:

Standard

(specify)

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MICA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time

4/24/20 15:10

Relinquished Date/Time

4/24/20 16:24

Turn-around Time:

☒ Standard

☐ 3 Day

☐ 2 Day

☐ Next Day

Same Day (specify)



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
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info@fremontanalytical.com

O'Neill Service Group

Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200

Work Order Number: 2005069

May 20, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 19 sample(s) on 5/8/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005069

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005069-001	358-B1-2.5	05/07/2020 9:25 AM	05/08/2020 8:15 AM
2005069-002	358-B1-5	05/07/2020 9:30 AM	05/08/2020 8:15 AM
2005069-003	358-B1-7.5	05/07/2020 10:00 AM	05/08/2020 8:15 AM
2005069-004	358-B1-10	05/07/2020 10:10 AM	05/08/2020 8:15 AM
2005069-005	358-B1-15	05/07/2020 10:20 AM	05/08/2020 8:15 AM
2005069-006	358-B1-20	05/07/2020 10:40 AM	05/08/2020 8:15 AM
2005069-007	358-B1-25	05/07/2020 10:50 AM	05/08/2020 8:15 AM
2005069-008	358-B2-5	05/07/2020 12:00 PM	05/08/2020 8:15 AM
2005069-009	358-B2-12.5	05/07/2020 12:10 PM	05/08/2020 8:15 AM
2005069-010	358-B2-15	05/07/2020 12:15 PM	05/08/2020 8:15 AM
2005069-011	358-B2-20	05/07/2020 12:20 PM	05/08/2020 8:15 AM
2005069-012	358-B2-25	05/07/2020 12:30 PM	05/08/2020 8:15 AM
2005069-013	358-B3-5	05/07/2020 2:25 PM	05/08/2020 8:15 AM
2005069-014	358-B3-7.5	05/07/2020 2:30 PM	05/08/2020 8:15 AM
2005069-015	358-B3-10	05/07/2020 2:35 PM	05/08/2020 8:15 AM
2005069-016	358-B3-12.5	05/07/2020 2:40 PM	05/08/2020 8:15 AM
2005069-017	358-B3-15	05/07/2020 2:45 PM	05/08/2020 8:15 AM
2005069-018	358-B3-20	05/07/2020 3:00 PM	05/08/2020 8:15 AM
2005069-019	Trip Blank	05/06/2020 12:40 PM	05/08/2020 8:15 AM

CLIENT: O'Neill Service Group**Project:** F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

5/20/20: Revision 1 includes additional analysis requested by client.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 10:10:00 AM

Project: F200

Lab ID: 2005069-004

Matrix: Soil

Client Sample ID: 358-B1-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloromethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Vinyl chloride	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromomethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Trichlorofluoromethane (CFC-11)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloroethane	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Methylene chloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
trans-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
cis-1,2-Dichloroethene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chloroform	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,1-Trichloroethane (TCA)	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1-Dichloropropene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Carbon tetrachloride	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichloroethane (EDC)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Trichloroethene (TCE)	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromodichloromethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Dibromomethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
cis-1,3-Dichloropropene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
trans-1,3-Dichloropropylene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,2-Trichloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,3-Dichloropropane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Tetrachloroethene (PCE)	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Dibromochloromethane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dibromoethane (EDB)	ND	0.00560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Chlorobenzene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,1,2-Tetrachloroethane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromoform	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,1,2,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Bromobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
2-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
4-Chlorotoluene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,3-Trichloropropane	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,4-Trichlorobenzene	ND	0.0280		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,3-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,4-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2-Dichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 10:10:00 AM

Project: F200

Lab ID: 2005069-004

Matrix: Soil

Client Sample ID: 358-B1-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Hexachloro-1,3-butadiene	ND	0.0560		mg/Kg-dry	1	5/11/2020 9:55:46 PM
1,2,3-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 9:55:46 PM
Surr: Dibromofluoromethane	96.1	80 - 116		%Rec	1	5/11/2020 9:55:46 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/11/2020 9:55:46 PM
Surr: 1-Bromo-4-fluorobenzene	96.2	82.8 - 113		%Rec	1	5/11/2020 9:55:46 PM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	15.0	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 10:40:00 AM

Project: F200

Lab ID: 2005069-006

Matrix: Soil

Client Sample ID: 358-B1-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloromethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Vinyl chloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromomethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Trichlorofluoromethane (CFC-11)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloroethane	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Methylene chloride	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
trans-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
cis-1,2-Dichloroethene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chloroform	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,1-Trichloroethane (TCA)	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1-Dichloropropene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Carbon tetrachloride	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichloroethane (EDC)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Trichloroethene (TCE)	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichloropropane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromodichloromethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Dibromomethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
cis-1,3-Dichloropropene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
trans-1,3-Dichloropropylene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,2-Trichloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,3-Dichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Tetrachloroethene (PCE)	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Dibromochloromethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dibromoethane (EDB)	ND	0.00447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Chlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,1,2-Tetrachloroethane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromoform	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,1,2,2-Tetrachloroethane	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Bromobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
2-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
4-Chlorotoluene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,3-Trichloropropane	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,4-Trichlorobenzene	ND	0.0224		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,3-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,4-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2-Dichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 10:40:00 AM

Project: F200

Lab ID: 2005069-006

Matrix: Soil

Client Sample ID: 358-B1-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Hexachloro-1,3-butadiene	ND	0.0447		mg/Kg-dry	1	5/11/2020 10:25:53 PM
1,2,3-Trichlorobenzene	ND	0.0179		mg/Kg-dry	1	5/11/2020 10:25:53 PM
Surr: Dibromofluoromethane	96.9	80 - 116		%Rec	1	5/11/2020 10:25:53 PM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/11/2020 10:25:53 PM
Surr: 1-Bromo-4-fluorobenzene	96.1	82.8 - 113		%Rec	1	5/11/2020 10:25:53 PM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	6.75	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 12:10:00 PM

Project: F200

Lab ID: 2005069-009

Matrix: Soil

Client Sample ID: 358-B2-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloromethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Vinyl chloride	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromomethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Trichlorofluoromethane (CFC-11)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloroethane	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Methylene chloride	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
trans-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
cis-1,2-Dichloroethene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chloroform	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,1-Trichloroethane (TCA)	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1-Dichloropropene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Carbon tetrachloride	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichloroethane (EDC)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Trichloroethene (TCE)	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichloropropane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromodichloromethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Dibromomethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
cis-1,3-Dichloropropene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
trans-1,3-Dichloropropylene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,2-Trichloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,3-Dichloropropane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Tetrachloroethene (PCE)	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Dibromochloromethane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dibromoethane (EDB)	ND	0.00633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Chlorobenzene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,1,2-Tetrachloroethane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromoform	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,1,2,2-Tetrachloroethane	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Bromobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
2-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
4-Chlorotoluene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,3-Trichloropropane	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,4-Trichlorobenzene	ND	0.0317		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,3-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,4-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2-Dichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 12:10:00 PM

Project: F200

Lab ID: 2005069-009

Matrix: Soil

Client Sample ID: 358-B2-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Hexachloro-1,3-butadiene	ND	0.0633		mg/Kg-dry	1	5/11/2020 10:56:02 PM
1,2,3-Trichlorobenzene	ND	0.0253		mg/Kg-dry	1	5/11/2020 10:56:02 PM
Surr: Dibromofluoromethane	98.7	80 - 116		%Rec	1	5/11/2020 10:56:02 PM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/11/2020 10:56:02 PM
Surr: 1-Bromo-4-fluorobenzene	99.0	82.8 - 113		%Rec	1	5/11/2020 10:56:02 PM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	13.5	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 12:30:00 PM

Project: F200

Lab ID: 2005069-012

Matrix: Soil

Client Sample ID: 358-B2-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloromethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Vinyl chloride	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromomethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Trichlorofluoromethane (CFC-11)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloroethane	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Methylene chloride	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
trans-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
cis-1,2-Dichloroethene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chloroform	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,1-Trichloroethane (TCA)	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1-Dichloropropene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Carbon tetrachloride	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichloroethane (EDC)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Trichloroethene (TCE)	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichloropropane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromodichloromethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Dibromomethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
cis-1,3-Dichloropropene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
trans-1,3-Dichloropropylene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,2-Trichloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,3-Dichloropropane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Tetrachloroethene (PCE)	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Dibromochloromethane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dibromoethane (EDB)	ND	0.00594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Chlorobenzene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,1,2-Tetrachloroethane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromoform	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,1,2,2-Tetrachloroethane	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Bromobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
2-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
4-Chlorotoluene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,3-Trichloropropane	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,4-Trichlorobenzene	ND	0.0297		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,3-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,4-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2-Dichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 12:30:00 PM

Project: F200

Lab ID: 2005069-012

Matrix: Soil

Client Sample ID: 358-B2-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Hexachloro-1,3-butadiene	ND	0.0594		mg/Kg-dry	1	5/11/2020 11:56:18 PM
1,2,3-Trichlorobenzene	ND	0.0238		mg/Kg-dry	1	5/11/2020 11:56:18 PM
Surr: Dibromofluoromethane	95.9	80 - 116		%Rec	1	5/11/2020 11:56:18 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/11/2020 11:56:18 PM
Surr: 1-Bromo-4-fluorobenzene	96.9	82.8 - 113		%Rec	1	5/11/2020 11:56:18 PM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	17.0	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:35:00 PM

Project: F200

Lab ID: 2005069-015

Matrix: Soil

Client Sample ID: 358-B3-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloromethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Vinyl chloride	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromomethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Trichlorofluoromethane (CFC-11)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloroethane	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Methylene chloride	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
trans-1,2-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
cis-1,2-Dichloroethene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chloroform	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,1-Trichloroethane (TCA)	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1-Dichloropropene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Carbon tetrachloride	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichloroethane (EDC)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Trichloroethene (TCE)	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichloropropane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromodichloromethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Dibromomethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
cis-1,3-Dichloropropene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
trans-1,3-Dichloropropylene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,2-Trichloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,3-Dichloropropane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Tetrachloroethene (PCE)	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Dibromochloromethane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dibromoethane (EDB)	ND	0.00509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Chlorobenzene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,1,2-Tetrachloroethane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromoform	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,1,2,2-Tetrachloroethane	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Bromobenzene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
2-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
4-Chlorotoluene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,3-Trichloropropane	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,4-Trichlorobenzene	ND	0.0254		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,3-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,4-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2-Dichlorobenzene	ND	0.0204	*	mg/Kg-dry	1	5/20/2020 7:16:07 AM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:35:00 PM

Project: F200

Lab ID: 2005069-015

Matrix: Soil

Client Sample ID: 358-B3-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Hexachloro-1,3-butadiene	ND	0.0509		mg/Kg-dry	1	5/20/2020 7:16:07 AM
1,2,3-Trichlorobenzene	ND	0.0204		mg/Kg-dry	1	5/20/2020 7:16:07 AM
Surr: Dibromofluoromethane	98.1	80 - 116		%Rec	1	5/20/2020 7:16:07 AM
Surr: Toluene-d8	102	84.8 - 113		%Rec	1	5/20/2020 7:16:07 AM
Surr: 1-Bromo-4-fluorobenzene	100	82.8 - 113		%Rec	1	5/20/2020 7:16:07 AM

NOTES:

* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R59252

Analyst: EH

Percent Moisture	14.9	0.500		wt%	1	5/19/2020 12:14:02 PM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:40:00 PM

Project: F200

Lab ID: 2005069-016

Matrix: Soil

Client Sample ID: 358-B3-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloromethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Vinyl chloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromomethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Trichlorofluoromethane (CFC-11)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloroethane	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloroethene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Methylene chloride	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
trans-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
cis-1,2-Dichloroethene	0.0235	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chloroform	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,1-Trichloroethane (TCA)	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1-Dichloropropene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Carbon tetrachloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichloroethane (EDC)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Trichloroethene (TCE)	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichloropropane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromodichloromethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Dibromomethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
cis-1,3-Dichloropropene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
trans-1,3-Dichloropropylene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,2-Trichloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,3-Dichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Tetrachloroethene (PCE)	0.0830	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Dibromochloromethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dibromoethane (EDB)	ND	0.00489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Chlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,1,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromoform	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,1,2,2-Tetrachloroethane	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Bromobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
2-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
4-Chlorotoluene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,3-Trichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,4-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,3-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:40:00 PM

Project: F200

Lab ID: 2005069-016

Matrix: Soil

Client Sample ID: 358-B3-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Hexachloro-1,3-butadiene	ND	0.0489		mg/Kg-dry	1	5/12/2020 12:26:28 AM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/12/2020 12:26:28 AM
Surr: Dibromofluoromethane	93.9	80 - 116		%Rec	1	5/12/2020 12:26:28 AM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 12:26:28 AM
Surr: 1-Bromo-4-fluorobenzene	97.4	82.8 - 113		%Rec	1	5/12/2020 12:26:28 AM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	18.5	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:45:00 PM

Project: F200

Lab ID: 2005069-017

Matrix: Soil

Client Sample ID: 358-B3-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloromethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Vinyl chloride	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromomethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Trichlorofluoromethane (CFC-11)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloroethane	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloroethene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Methylene chloride	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
trans-1,2-Dichloroethene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
cis-1,2-Dichloroethene	0.0669	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chloroform	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,1-Trichloroethane (TCA)	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1-Dichloropropene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Carbon tetrachloride	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichloroethane (EDC)	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Trichloroethene (TCE)	0.0379	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichloropropane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromodichloromethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Dibromomethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
cis-1,3-Dichloropropene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
trans-1,3-Dichloropropylene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,2-Trichloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,3-Dichloropropane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Tetrachloroethene (PCE)	0.121	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Dibromochloromethane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dibromoethane (EDB)	ND	0.00427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Chlorobenzene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,1,2-Tetrachloroethane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromoform	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,1,2,2-Tetrachloroethane	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Bromobenzene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
2-Chlorotoluene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
4-Chlorotoluene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,3-Trichloropropane	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,4-Trichlorobenzene	ND	0.0214		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,3-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,4-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2-Dichlorobenzene	ND	0.0171	*	mg/Kg-dry	1	5/20/2020 7:46:16 AM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 2:45:00 PM

Project: F200

Lab ID: 2005069-017

Matrix: Soil

Client Sample ID: 358-B3-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Hexachloro-1,3-butadiene	ND	0.0427		mg/Kg-dry	1	5/20/2020 7:46:16 AM
1,2,3-Trichlorobenzene	ND	0.0171		mg/Kg-dry	1	5/20/2020 7:46:16 AM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/20/2020 7:46:16 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 7:46:16 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	82.8 - 113		%Rec	1	5/20/2020 7:46:16 AM

NOTES:

* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R59252

Analyst: EH

Percent Moisture	6.64	0.500		wt%	1	5/19/2020 12:14:02 PM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 3:00:00 PM

Project: F200

Lab ID: 2005069-018

Matrix: Soil

Client Sample ID: 358-B3-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloromethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Vinyl chloride	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromomethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Trichlorofluoromethane (CFC-11)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloroethane	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Methylene chloride	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
trans-1,2-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
cis-1,2-Dichloroethene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chloroform	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,1-Trichloroethane (TCA)	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1-Dichloropropene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Carbon tetrachloride	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichloroethane (EDC)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Trichloroethene (TCE)	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichloropropane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromodichloromethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Dibromomethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
cis-1,3-Dichloropropene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
trans-1,3-Dichloropropylene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,2-Trichloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,3-Dichloropropane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Tetrachloroethene (PCE)	0.0384	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Dibromochloromethane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dibromoethane (EDB)	ND	0.00472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Chlorobenzene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,1,2-Tetrachloroethane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromoform	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,1,2,2-Tetrachloroethane	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Bromobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
2-Chlorotoluene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
4-Chlorotoluene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,3-Trichloropropane	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,4-Trichlorobenzene	ND	0.0236		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,3-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,4-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2-Dichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/7/2020 3:00:00 PM

Project: F200

Lab ID: 2005069-018

Matrix: Soil

Client Sample ID: 358-B3-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Hexachloro-1,3-butadiene	ND	0.0472		mg/Kg-dry	1	5/12/2020 12:56:35 AM
1,2,3-Trichlorobenzene	ND	0.0189		mg/Kg-dry	1	5/12/2020 12:56:35 AM
Surr: Dibromofluoromethane	93.5	80 - 116		%Rec	1	5/12/2020 12:56:35 AM
Surr: Toluene-d8	98.7	84.8 - 113		%Rec	1	5/12/2020 12:56:35 AM
Surr: 1-Bromo-4-fluorobenzene	94.8	82.8 - 113		%Rec	1	5/12/2020 12:56:35 AM

Sample Moisture (Percent Moisture)

Batch ID: R59095

Analyst: EH

Percent Moisture	7.74	0.500		wt%	1	5/11/2020 11:01:24 AM
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Analytical Report

Work Order: 2005069

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/6/2020 12:40:00 PM

Project: F200

Lab ID: 2005069-019

Matrix: Soil

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloromethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
Vinyl chloride	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Bromomethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
Trichlorofluoromethane (CFC-11)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloroethane	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Methylene chloride	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
trans-1,2-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
cis-1,2-Dichloroethene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Chloroform	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,1-Trichloroethane (TCA)	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,1-Dichloropropene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Carbon tetrachloride	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichloroethane (EDC)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Trichloroethene (TCE)	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichloropropane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Bromodichloromethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Dibromomethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
cis-1,3-Dichloropropene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
trans-1,3-Dichloropropylene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,2-Trichloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,3-Dichloropropane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Tetrachloroethene (PCE)	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Dibromochloromethane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dibromoethane (EDB)	ND	0.00500		mg/Kg	1	5/11/2020 4:25:47 PM
Chlorobenzene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,1,2-Tetrachloroethane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
Bromoform	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,1,2,2-Tetrachloroethane	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Bromobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
2-Chlorotoluene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
4-Chlorotoluene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,3-Trichloropropane	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,4-Trichlorobenzene	ND	0.0250		mg/Kg	1	5/11/2020 4:25:47 PM
1,3-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,4-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
1,2-Dichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM



Analytical Report

Work Order: 2005069
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/6/2020 12:40:00 PM

Project: F200

Lab ID: 2005069-019

Matrix: Soil

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28293

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	0.500		mg/Kg	1	5/11/2020 4:25:47 PM
Hexachloro-1,3-butadiene	ND	0.0500		mg/Kg	1	5/11/2020 4:25:47 PM
1,2,3-Trichlorobenzene	ND	0.0200		mg/Kg	1	5/11/2020 4:25:47 PM
Surr: Dibromofluoromethane	95.0	80 - 116		%Rec	1	5/11/2020 4:25:47 PM
Surr: Toluene-d8	99.4	84.8 - 113		%Rec	1	5/11/2020 4:25:47 PM
Surr: 1-Bromo-4-fluorobenzene	97.5	82.8 - 113		%Rec	1	5/11/2020 4:25:47 PM

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28369	SampType: LCS	Units: mg/Kg				Prep Date: 5/19/2020		RunNo: 59275			
Client ID: LCSS	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184677			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.945	0.0200	1.000	0	94.5	21.6	169				
Chloromethane	0.944	0.0500	1.000	0	94.4	45.3	153				
Vinyl chloride	0.929	0.0250	1.000	0	92.9	57.5	137				
Bromomethane	0.918	0.0500	1.000	0	91.8	32.8	194				
Trichlorofluoromethane (CFC-11)	0.957	0.0200	1.000	0	95.7	54.3	152				
Chloroethane	0.954	0.0500	1.000	0	95.4	52	146				
1,1-Dichloroethene	0.941	0.0200	1.000	0	94.1	62.8	139				
Methylene chloride	0.952	0.0200	1.000	0	95.2	78.4	118				
trans-1,2-Dichloroethene	0.954	0.0200	1.000	0	95.4	82	117				
1,1-Dichloroethane	0.959	0.0200	1.000	0	95.9	78	119				
cis-1,2-Dichloroethene	0.978	0.0200	1.000	0	97.8	81.9	116				
Chloroform	0.960	0.0200	1.000	0	96.0	80.8	117				
1,1,1-Trichloroethane (TCA)	0.962	0.0250	1.000	0	96.2	81.4	117				
1,1-Dichloropropene	0.952	0.0200	1.000	0	95.2	79.9	117				
Carbon tetrachloride	0.944	0.0500	1.000	0	94.4	80.4	117				
1,2-Dichloroethane (EDC)	0.969	0.0200	1.000	0	96.9	77.5	117				
Trichloroethene (TCE)	0.944	0.0200	1.000	0	94.4	83.4	115				
1,2-Dichloropropane	0.959	0.0200	1.000	0	95.9	77.6	117				
Bromodichloromethane	0.952	0.0200	1.000	0	95.2	78.9	116				
Dibromomethane	0.972	0.0200	1.000	0	97.2	81.2	115				
cis-1,3-Dichloropropene	0.963	0.0200	1.000	0	96.3	78	115				
trans-1,3-Dichloropropylene	0.955	0.0200	1.000	0	95.5	75.7	117				
1,1,2-Trichloroethane	0.948	0.0200	1.000	0	94.8	77.9	118				
1,3-Dichloropropane	0.943	0.0250	1.000	0	94.3	77.1	118				
Tetrachloroethene (PCE)	0.937	0.0250	1.000	0	93.7	84.3	117				
Dibromochloromethane	0.951	0.0250	1.000	0	95.1	77.9	118				
1,2-Dibromoethane (EDB)	0.953	0.00500	1.000	0	95.3	78.6	117				
Chlorobenzene	0.946	0.0250	1.000	0	94.6	86.5	113				
1,1,1,2-Tetrachloroethane	0.920	0.0250	1.000	0	92.0	84.8	113				

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28369	SampType: LCS	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: LCSS	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184677			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.922	0.0500	1.000	0	92.2	70.7	125				
1,1,2,2-Tetrachloroethane	0.927	0.0200	1.000	0	92.7	68.3	125				
Bromobenzene	0.963	0.0200	1.000	0	96.3	84	117				
2-Chlorotoluene	0.966	0.0250	1.000	0	96.6	80.4	122				
4-Chlorotoluene	0.969	0.0250	1.000	0	96.9	83.1	118				
1,2,3-Trichloropropane	0.954	0.0250	1.000	0	95.4	71	125				
1,2,4-Trichlorobenzene	0.956	0.0250	1.000	0	95.6	81	126				
1,3-Dichlorobenzene	0.890	0.0200	1.000	0	89.0	90.4	115				S
1,4-Dichlorobenzene	0.875	0.0200	1.000	0	87.5	90.3	115				S
1,2-Dichlorobenzene	0.884	0.0200	1.000	0	88.4	90.3	115				S
1,2-Dibromo-3-chloropropane	0.953	0.500	1.000	0	95.3	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.932	0.0200	1.000	0	93.2	75.9	130				
Surr: Dibromofluoromethane	1.35		1.250		108	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	82.8	113				

NOTES:

S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: MBLKS	Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184678		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: MBLKS	Batch ID: 28369				Analysis Date: 5/20/2020			SeqNo: 1184678			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: MBLKS	Batch ID: 28369				Analysis Date: 5/20/2020			SeqNo: 1184678			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.0200									*
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									*
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.22		1.250		97.4	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	82.8	113				

NOTES:

* - Flagged value is not within established control limits.

Sample ID: 2005069-017BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: 358-B3-15	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184667			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0171						0		30	
Chloromethane	ND	0.0427						0		30	
Vinyl chloride	ND	0.0214						0		30	
Bromomethane	ND	0.0427						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0171						0		30	
Chloroethane	ND	0.0427						0		30	
1,1-Dichloroethene	ND	0.0171						0		30	
Methylene chloride	ND	0.0171						0		30	
trans-1,2-Dichloroethene	ND	0.0171						0		30	
1,1-Dichloroethane	ND	0.0171						0		30	
cis-1,2-Dichloroethene	0.0653	0.0171						0.06688	2.35	30	
Chloroform	ND	0.0171						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0214						0		30	
1,1-Dichloropropene	ND	0.0171						0		30	

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-017BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: 358-B3-15	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184667			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0427						0		30	
1,2-Dichloroethane (EDC)	ND	0.0171						0		30	
Trichloroethene (TCE)	0.0378	0.0171						0.03793	0.371	30	
1,2-Dichloropropane	ND	0.0171						0		30	
Bromodichloromethane	ND	0.0171						0		30	
Dibromomethane	ND	0.0171						0		30	
cis-1,3-Dichloropropene	ND	0.0171						0		30	
trans-1,3-Dichloropropylene	ND	0.0171						0		30	
1,1,2-Trichloroethane	ND	0.0171						0		30	
1,3-Dichloropropane	ND	0.0214						0		30	
Tetrachloroethene (PCE)	0.115	0.0214						0.1215	5.82	30	
Dibromochloromethane	ND	0.0214						0		30	
1,2-Dibromoethane (EDB)	ND	0.00427						0		30	
Chlorobenzene	ND	0.0214						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0214						0		30	
Bromoform	ND	0.0427						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0171						0		30	
Bromobenzene	ND	0.0171						0		30	
2-Chlorotoluene	ND	0.0214						0		30	
4-Chlorotoluene	ND	0.0214						0		30	
1,2,3-Trichloropropane	ND	0.0214						0		30	
1,2,4-Trichlorobenzene	ND	0.0214						0		30	
1,3-Dichlorobenzene	ND	0.0171						0		30	*
1,4-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.427						0		30	
Hexachloro-1,3-butadiene	ND	0.0427						0		30	
1,2,3-Trichlorobenzene	ND	0.0171						0		30	
Surr: Dibromofluoromethane	1.06		1.068		99.1	80	116		0		

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/19/2020			RunNo: 59275			
Client ID: 358-B3-15		Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184667		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Toluene-d8	1.07		1.068		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.04		1.068		97.9	82.8	113		0		

NOTES:

* - Flagged value is not within established control limits.

Sample ID: 2005214-026BDUP	SampType: DUP	Units: mg/Kg				Prep Date: 5/19/2020				RunNo: 59275		
Client ID: BATCH	Batch ID: 28369					Analysis Date: 5/20/2020				SeqNo: 1184671		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0177						0		30	
Chloromethane	ND	0.0441						0		30	
Vinyl chloride	ND	0.0221						0		30	
Bromomethane	ND	0.0441						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0177						0		30	
Chloroethane	ND	0.0441						0		30	
1,1-Dichloroethene	ND	0.0177						0		30	
Methylene chloride	ND	0.0177						0		30	
trans-1,2-Dichloroethene	ND	0.0177						0		30	
1,1-Dichloroethane	ND	0.0177						0		30	
cis-1,2-Dichloroethene	ND	0.0177						0		30	
Chloroform	ND	0.0177						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0221						0		30	
1,1-Dichloropropene	ND	0.0177						0		30	
Carbon tetrachloride	ND	0.0441						0		30	
1,2-Dichloroethane (EDC)	ND	0.0177						0		30	
Trichloroethene (TCE)	ND	0.0177						0		30	
1,2-Dichloropropane	ND	0.0177						0		30	
Bromodichloromethane	ND	0.0177						0		30	
Dibromomethane	ND	0.0177						0		30	
cis-1,3-Dichloropropene	ND	0.0177						0		30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-026BDUP	SampType: DUP	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: BATCH	Batch ID: 28369				Analysis Date: 5/20/2020			SeqNo: 1184671			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0177						0		30	
1,1,2-Trichloroethane	ND	0.0177						0		30	
1,3-Dichloropropane	ND	0.0221						0		30	
Tetrachloroethene (PCE)	ND	0.0221						0		30	
Dibromochloromethane	ND	0.0221						0		30	
1,2-Dibromoethane (EDB)	ND	0.00441						0		30	
Chlorobenzene	ND	0.0221						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0221						0		30	
Bromoform	ND	0.0441						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0177						0		30	
Bromobenzene	ND	0.0177						0		30	
2-Chlorotoluene	ND	0.0221						0		30	
4-Chlorotoluene	ND	0.0221						0		30	
1,2,3-Trichloropropane	ND	0.0221						0		30	
1,2,4-Trichlorobenzene	ND	0.0221						0		30	
1,3-Dichlorobenzene	ND	0.0177						0		30	*
1,4-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.441						0		30	
Hexachloro-1,3-butadiene	ND	0.0441						0		30	
1,2,3-Trichlorobenzene	ND	0.0177						0		30	
Surr: Dibromofluoromethane	1.15		1.104		104	80	116		0		
Surr: Toluene-d8	1.12		1.104		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.09		1.104		98.6	82.8	113		0		

NOTES:

* - Flagged value is not within established control limits.

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMS	SampType: MS	Units: mg/Kg				Prep Date: 5/19/2020		RunNo: 59275			
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184673			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0186	0.9294	0	90.4	-0.64	180				
Chloromethane	0.882	0.0465	0.9294	0	94.9	33.2	162				
Vinyl chloride	0.884	0.0232	0.9294	0	95.1	47.2	146				
Bromomethane	0.949	0.0465	0.9294	0	102	18.7	226				
Trichlorofluoromethane (CFC-11)	0.847	0.0186	0.9294	0	91.1	48.9	158				
Chloroethane	0.968	0.0465	0.9294	0	104	20.8	195				
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135				
Methylene chloride	0.933	0.0186	0.9294	0	100	64.9	137				
trans-1,2-Dichloroethene	0.907	0.0186	0.9294	0	97.5	75.1	126				
1,1-Dichloroethane	0.938	0.0186	0.9294	0	101	68.4	132				
cis-1,2-Dichloroethene	0.989	0.0186	0.9294	0.04170	102	76.2	125				
Chloroform	0.932	0.0186	0.9294	0	100	74.5	127				
1,1,1-Trichloroethane (TCA)	0.898	0.0232	0.9294	0	96.6	74.5	126				
1,1-Dichloropropene	0.885	0.0186	0.9294	0	95.3	70.7	128				
Carbon tetrachloride	0.883	0.0465	0.9294	0	95.0	72.5	126				
1,2-Dichloroethane (EDC)	0.961	0.0186	0.9294	0	103	70.4	128				
Trichloroethene (TCE)	0.910	0.0186	0.9294	0	97.9	64.7	145				
1,2-Dichloropropane	0.940	0.0186	0.9294	0	101	69.3	129				
Bromodichloromethane	0.934	0.0186	0.9294	0	100	75.9	120				
Dibromomethane	0.970	0.0186	0.9294	0	104	78.5	123				
cis-1,3-Dichloropropene	0.878	0.0186	0.9294	0	94.5	67.3	122				
trans-1,3-Dichloropropylene	0.869	0.0186	0.9294	0	93.5	64.4	124				
1,1,2-Trichloroethane	0.927	0.0186	0.9294	0	99.7	72.4	129				
1,3-Dichloropropane	0.945	0.0232	0.9294	0	102	70.5	128				
Tetrachloroethene (PCE)	0.870	0.0232	0.9294	0	93.6	64.9	140				
Dibromochloromethane	0.946	0.0232	0.9294	0	102	71.8	125				
1,2-Dibromoethane (EDB)	0.941	0.00465	0.9294	0	101	73.8	126				
Chlorobenzene	0.902	0.0232	0.9294	0	97.1	85.1	118				
1,1,1,2-Tetrachloroethane	0.885	0.0232	0.9294	0	95.2	82.2	118				

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMS	SampType: MS	Units: mg/Kg				Prep Date: 5/19/2020		RunNo: 59275			
Client ID: BATCH	Batch ID: 28369					Analysis Date: 5/20/2020		SeqNo: 1184673			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.881	0.0465	0.9294	0	94.8	66.1	130				
1,1,2,2-Tetrachloroethane	0.933	0.0186	0.9294	0	100	41.2	150				
Bromobenzene	0.904	0.0186	0.9294	0	97.3	84.6	121				
2-Chlorotoluene	0.886	0.0232	0.9294	0	95.3	78.4	128				
4-Chlorotoluene	0.901	0.0232	0.9294	0	97.0	81.2	123				
1,2,3-Trichloropropane	0.975	0.0232	0.9294	0	105	66.4	132				
1,2,4-Trichlorobenzene	0.886	0.0232	0.9294	0	95.3	68.9	139				
1,3-Dichlorobenzene	0.834	0.0186	0.9294	0	89.8	87.8	120				
1,4-Dichlorobenzene	0.828	0.0186	0.9294	0	89.1	88.1	119				
1,2-Dichlorobenzene	0.851	0.0186	0.9294	0	91.6	88.1	120				
1,2-Dibromo-3-chloropropane	0.877	0.465	0.9294	0	94.3	56.6	144				
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148				
1,2,3-Trichlorobenzene	0.889	0.0186	0.9294	0	95.7	59.3	150				
Surr: Dibromofluoromethane	1.27		1.162		109	80	116				
Surr: Toluene-d8	1.19		1.162		102	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.162		103	82.8	113				

Sample ID: 2005214-028BMSD	SampType: MSD	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020							SeqNo: 1184674		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.853	0.0186	0.9294	0	91.8	-0.64	180	0.8406	1.50	30	
Chloromethane	0.920	0.0465	0.9294	0	98.9	33.2	162	0.8824	4.12	30	
Vinyl chloride	0.890	0.0232	0.9294	0	95.8	47.2	146	0.8842	0.660	30	
Bromomethane	0.899	0.0465	0.9294	0	96.8	18.7	226	0.9493	5.39	30	
Trichlorofluoromethane (CFC-11)	0.849	0.0186	0.9294	0	91.3	48.9	158	0.8470	0.203	30	
Chloroethane	1.01	0.0465	0.9294	0	109	20.8	195	0.9683	4.22	30	
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135	0.8826	0.0751	30	
Methylene chloride	0.972	0.0186	0.9294	0	105	64.9	137	0.9329	4.13	30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMSD	SampType: MSD	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020							SeqNo: 1184674		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.902	0.0186	0.9294	0	97.0	75.1	126	0.9066	0.534	30	
1,1-Dichloroethane	0.942	0.0186	0.9294	0	101	68.4	132	0.9375	0.507	30	
cis-1,2-Dichloroethene	0.969	0.0186	0.9294	0.04170	99.7	76.2	125	0.9893	2.12	30	
Chloroform	0.939	0.0186	0.9294	0	101	74.5	127	0.9322	0.684	30	
1,1,1-Trichloroethane (TCA)	0.899	0.0232	0.9294	0	96.7	74.5	126	0.8982	0.0881	30	
1,1-Dichloropropene	0.863	0.0186	0.9294	0	92.8	70.7	128	0.8854	2.61	30	
Carbon tetrachloride	0.887	0.0465	0.9294	0	95.4	72.5	126	0.8828	0.484	30	
1,2-Dichloroethane (EDC)	0.950	0.0186	0.9294	0	102	70.4	128	0.9614	1.19	30	
Trichloroethene (TCE)	0.902	0.0186	0.9294	0	97.0	64.7	145	0.9100	0.912	30	
1,2-Dichloropropane	0.925	0.0186	0.9294	0	99.5	69.3	129	0.9402	1.65	30	
Bromodichloromethane	0.950	0.0186	0.9294	0	102	75.9	120	0.9338	1.77	30	
Dibromomethane	0.967	0.0186	0.9294	0	104	78.5	123	0.9705	0.399	30	
cis-1,3-Dichloropropene	0.867	0.0186	0.9294	0	93.2	67.3	122	0.8781	1.31	30	
trans-1,3-Dichloropropylene	0.868	0.0186	0.9294	0	93.4	64.4	124	0.8688	0.0743	30	
1,1,2-Trichloroethane	0.933	0.0186	0.9294	0	100	72.4	129	0.9267	0.676	30	
1,3-Dichloropropane	0.934	0.0232	0.9294	0	101	70.5	128	0.9447	1.10	30	
Tetrachloroethene (PCE)	0.860	0.0232	0.9294	0	92.5	64.9	140	0.8700	1.16	30	
Dibromochloromethane	0.945	0.0232	0.9294	0	102	71.8	125	0.9462	0.142	30	
1,2-Dibromoethane (EDB)	0.940	0.00465	0.9294	0	101	73.8	126	0.9408	0.0314	30	
Chlorobenzene	0.907	0.0232	0.9294	0	97.6	85.1	118	0.9023	0.500	30	
1,1,1,2-Tetrachloroethane	0.906	0.0232	0.9294	0	97.5	82.2	118	0.8848	2.35	30	
Bromoform	0.905	0.0465	0.9294	0	97.4	66.1	130	0.8811	2.73	30	
1,1,2,2-Tetrachloroethane	0.958	0.0186	0.9294	0	103	41.2	150	0.9329	2.61	30	
Bromobenzene	0.938	0.0186	0.9294	0	101	84.6	121	0.9040	3.74	30	
2-Chlorotoluene	0.915	0.0232	0.9294	0	98.4	78.4	128	0.8860	3.22	30	
4-Chlorotoluene	0.925	0.0232	0.9294	0	99.5	81.2	123	0.9012	2.61	30	
1,2,3-Trichloropropane	0.951	0.0232	0.9294	0	102	66.4	132	0.9747	2.50	30	
1,2,4-Trichlorobenzene	0.892	0.0232	0.9294	0	96.0	68.9	139	0.8861	0.653	30	
1,3-Dichlorobenzene	0.843	0.0186	0.9294	0	90.7	87.8	120	0.8343	1.06	30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMSD		SampType: MSD		Units: mg/Kg		Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH		Batch ID: 28369				Analysis Date: 5/20/2020			SeqNo: 1184674		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.830	0.0186	0.9294	0	89.3	88.1	119	0.8283	0.177	30	
1,2-Dichlorobenzene	0.862	0.0186	0.9294	0	92.8	88.1	120	0.8511	1.32	30	
1,2-Dibromo-3-chloropropane	0.969	0.465	0.9294	0	104	56.6	144	0.8765	10.0	30	
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148	0.8845	0.0647	30	
1,2,3-Trichlorobenzene	0.902	0.0186	0.9294	0	97.1	59.3	150	0.8893	1.43	30	
Surr: Dibromofluoromethane	1.28		1.162		110	80	116		0		
Surr: Toluene-d8	1.17		1.162		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.22		1.162		105	82.8	113		0		

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28293	SampType: LCS	Units: mg/Kg				Prep Date: 5/11/2020		RunNo: 59119			
Client ID: LCSS	Batch ID: 28293	Analysis Date: 5/11/2020						SeqNo: 1181211			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.42	0.0200	1.000	0	142	21.6	169				
Chloromethane	1.18	0.0500	1.000	0	118	45.3	153				
Vinyl chloride	1.10	0.0250	1.000	0	110	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.05	0.0200	1.000	0	105	54.3	152				
Chloroethane	1.03	0.0500	1.000	0	103	52	146				
1,1-Dichloroethene	1.02	0.0200	1.000	0	102	62.8	139				
Methylene chloride	0.947	0.0200	1.000	0	94.7	78.4	118				
trans-1,2-Dichloroethene	0.963	0.0200	1.000	0	96.3	82	117				
1,1-Dichloroethane	0.957	0.0200	1.000	0	95.7	78	119				
cis-1,2-Dichloroethene	0.957	0.0200	1.000	0	95.7	81.9	116				
Chloroform	0.964	0.0200	1.000	0	96.4	80.8	117				
1,1,1-Trichloroethane (TCA)	0.980	0.0250	1.000	0	98.0	81.4	117				
1,1-Dichloropropene	0.977	0.0200	1.000	0	97.7	79.9	117				
Carbon tetrachloride	1.01	0.0500	1.000	0	101	80.4	117				
1,2-Dichloroethane (EDC)	1.00	0.0200	1.000	0	100	77.5	117				
Trichloroethene (TCE)	0.994	0.0200	1.000	0	99.4	83.4	115				
1,2-Dichloropropane	0.969	0.0200	1.000	0	96.9	77.6	117				
Bromodichloromethane	0.980	0.0200	1.000	0	98.0	78.9	116				
Dibromomethane	0.990	0.0200	1.000	0	99.0	81.2	115				
cis-1,3-Dichloropropene	1.00	0.0200	1.000	0	100	78	115				
trans-1,3-Dichloropropylene	1.01	0.0200	1.000	0	101	75.7	117				
1,1,2-Trichloroethane	1.01	0.0200	1.000	0	101	77.9	118				
1,3-Dichloropropane	1.01	0.0250	1.000	0	101	77.1	118				
Tetrachloroethene (PCE)	0.994	0.0250	1.000	0	99.4	84.3	117				
Dibromochloromethane	1.03	0.0250	1.000	0	103	77.9	118				
1,2-Dibromoethane (EDB)	1.03	0.00500	1.000	0	103	78.6	117				
Chlorobenzene	0.980	0.0250	1.000	0	98.0	86.5	113				
1,1,1,2-Tetrachloroethane	1.01	0.0250	1.000	0	101	84.8	113				

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28293	SampType: LCS	Units: mg/Kg				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: LCSS	Batch ID: 28293					Analysis Date: 5/11/2020			SeqNo: 1181211		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	1.06	0.0500	1.000	0	106	70.7	125				
1,1,2,2-Tetrachloroethane	1.01	0.0200	1.000	0	101	68.3	125				
Bromobenzene	0.992	0.0200	1.000	0	99.2	84	117				
2-Chlorotoluene	0.975	0.0250	1.000	0	97.5	80.4	122				
4-Chlorotoluene	0.970	0.0250	1.000	0	97.0	83.1	118				
1,2,3-Trichloropropane	1.08	0.0250	1.000	0	108	71	125				
1,2,4-Trichlorobenzene	1.05	0.0250	1.000	0	105	81	126				
1,3-Dichlorobenzene	0.997	0.0200	1.000	0	99.7	90.4	115				
1,4-Dichlorobenzene	0.997	0.0200	1.000	0	99.7	90.3	115				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	90.3	115				
1,2-Dibromo-3-chloropropane	1.11	0.500	1.000	0	111	62.3	136				
Hexachloro-1,3-butadiene	0.980	0.0500	1.000	0	98.0	77.8	133				
1,2,3-Trichlorobenzene	1.10	0.0200	1.000	0	110	75.9	130				
Surr: Dibromofluoromethane	1.26		1.250		101	80	116				
Surr: Toluene-d8	1.24		1.250		99.0	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.250		106	82.8	113				

Sample ID: MB-28293	SampType: MBLK	Units: mg/Kg				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: MBLKS	Batch ID: 28293					Analysis Date: 5/11/2020			SeqNo: 1181212		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28293	SampType: MBLK	Units: mg/Kg			Prep Date: 5/11/2020			RunNo: 59119			
Client ID: MBLKS	Batch ID: 28293	Analysis Date: 5/11/2020						SeqNo: 1181212			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28293	SampType: MBLK	Units: mg/Kg			Prep Date: 5/11/2020			RunNo: 59119			
Client ID: MBLKS	Batch ID: 28293				Analysis Date: 5/11/2020			SeqNo: 1181212			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.15		1.250		92.4	80	116				
Surr: Toluene-d8	1.23		1.250		98.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		96.0	82.8	113				

Sample ID: 2005069-009BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B2-12.5	Batch ID: 28293					Analysis Date: 5/11/2020			SeqNo: 1181199		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0253						0		30	
Chloromethane	ND	0.0633						0		30	
Vinyl chloride	ND	0.0317						0		30	
Bromomethane	ND	0.0633						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0253						0		30	
Chloroethane	ND	0.0633						0		30	
1,1-Dichloroethene	ND	0.0253						0		30	
Methylene chloride	ND	0.0253						0		30	
trans-1,2-Dichloroethene	ND	0.0253						0		30	
1,1-Dichloroethane	ND	0.0253						0		30	
cis-1,2-Dichloroethene	ND	0.0253						0		30	
Chloroform	ND	0.0253						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0317						0		30	
1,1-Dichloropropene	ND	0.0253						0		30	
Carbon tetrachloride	ND	0.0633						0		30	
1,2-Dichloroethane (EDC)	ND	0.0253						0		30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-009BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B2-12.5	Batch ID: 28293	Analysis Date: 5/11/2020						SeqNo: 1181199			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.0253						0		30	
1,2-Dichloropropane	ND	0.0253						0		30	
Bromodichloromethane	ND	0.0253						0		30	
Dibromomethane	ND	0.0253						0		30	
cis-1,3-Dichloropropene	ND	0.0253						0		30	
trans-1,3-Dichloropropylene	ND	0.0253						0		30	
1,1,2-Trichloroethane	ND	0.0253						0		30	
1,3-Dichloropropane	ND	0.0317						0		30	
Tetrachloroethene (PCE)	ND	0.0317						0		30	
Dibromochloromethane	ND	0.0317						0		30	
1,2-Dibromoethane (EDB)	ND	0.00633						0		30	
Chlorobenzene	ND	0.0317						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0317						0		30	
Bromoform	ND	0.0633						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0253						0		30	
Bromobenzene	ND	0.0253						0		30	
2-Chlorotoluene	ND	0.0317						0		30	
4-Chlorotoluene	ND	0.0317						0		30	
1,2,3-Trichloropropane	ND	0.0317						0		30	
1,2,4-Trichlorobenzene	ND	0.0317						0		30	
1,3-Dichlorobenzene	ND	0.0253						0		30	
1,4-Dichlorobenzene	ND	0.0253						0		30	
1,2-Dichlorobenzene	ND	0.0253						0		30	
1,2-Dibromo-3-chloropropane	ND	0.633						0		30	
Hexachloro-1,3-butadiene	ND	0.0633						0		30	
1,2,3-Trichlorobenzene	ND	0.0253						0		30	
Surr: Dibromofluoromethane	1.55		1.583		97.9	80	116		0		
Surr: Toluene-d8	1.58		1.583		99.7	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.54		1.583		97.1	82.8	113		0		

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-009BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/11/2020			RunNo: 59119			
Client ID: 358-B2-12.5		Batch ID: 28293					Analysis Date: 5/11/2020			SeqNo: 1181199		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 2005077-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/11/2020			RunNo: 59119			
Client ID: BATCH		Batch ID: 28293					Analysis Date: 5/12/2020			SeqNo: 1181207		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0336						0		30	
Chloromethane	ND	0.0840						0		30	
Vinyl chloride	ND	0.0420						0		30	
Bromomethane	ND	0.0840						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0336						0		30	
Chloroethane	ND	0.0840						0		30	
1,1-Dichloroethene	ND	0.0336						0		30	
Methylene chloride	ND	0.0336						0		30	
trans-1,2-Dichloroethene	ND	0.0336						0		30	
1,1-Dichloroethane	ND	0.0336						0		30	
cis-1,2-Dichloroethene	ND	0.0336						0		30	
Chloroform	ND	0.0336						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0420						0		30	
1,1-Dichloropropene	ND	0.0336						0		30	
Carbon tetrachloride	ND	0.0840						0		30	
1,2-Dichloroethane (EDC)	ND	0.0336						0		30	
Trichloroethene (TCE)	ND	0.0336						0		30	
1,2-Dichloropropane	ND	0.0336						0		30	
Bromodichloromethane	ND	0.0336						0		30	
Dibromomethane	ND	0.0336						0		30	
cis-1,3-Dichloropropene	ND	0.0336						0		30	
trans-1,3-Dichloropropylene	ND	0.0336						0		30	
1,1,2-Trichloroethane	ND	0.0336						0		30	
1,3-Dichloropropane	ND	0.0420						0		30	

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005077-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/11/2020			RunNo: 59119		
Client ID: BATCH		Batch ID: 28293		Analysis Date: 5/12/2020						SeqNo: 1181207	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	0.0420						0		30	
Dibromochloromethane	ND	0.0420						0		30	
1,2-Dibromoethane (EDB)	ND	0.00840						0		30	
Chlorobenzene	ND	0.0420						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0420						0		30	
Bromoform	ND	0.0840						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0336						0		30	
Bromobenzene	ND	0.0336						0		30	
2-Chlorotoluene	ND	0.0420						0		30	
4-Chlorotoluene	ND	0.0420						0		30	
1,2,3-Trichloropropane	ND	0.0420						0		30	
1,2,4-Trichlorobenzene	ND	0.0420						0		30	
1,3-Dichlorobenzene	ND	0.0336						0		30	
1,4-Dichlorobenzene	ND	0.0336						0		30	
1,2-Dichlorobenzene	ND	0.0336						0		30	
1,2-Dibromo-3-chloropropane	ND	0.840						0		30	
Hexachloro-1,3-butadiene	ND	0.0840						0		30	
1,2,3-Trichlorobenzene	ND	0.0336						0		30	
Surr: Dibromofluoromethane	1.97		2.101		93.8	80	116		0		
Surr: Toluene-d8	2.09		2.101		99.5	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	2.03		2.101		96.4	82.8	113		0		

Sample ID: 2005069-018BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B3-20		Batch ID: 28293				Analysis Date: 5/12/2020			SeqNo: 1181203		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.11	0.0189	0.9439	0	117	-0.64	180				
Chloromethane	1.11	0.0472	0.9439	0	117	33.2	162				
Vinyl chloride	1.02	0.0236	0.9439	0	108	47.2	146				

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-018BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 5/11/2020		RunNo: 59119			
Client ID: 358-B3-20	Batch ID: 28293	Analysis Date: 5/12/2020						SeqNo: 1181203			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	1.52	0.0472	0.9439	0	162	18.7	226				
Trichlorofluoromethane (CFC-11)	0.964	0.0189	0.9439	0	102	48.9	158				
Chloroethane	1.10	0.0472	0.9439	0	116	20.8	195				
1,1-Dichloroethene	0.993	0.0189	0.9439	0	105	67.1	135				
Methylene chloride	1.02	0.0189	0.9439	0	108	64.9	137				
trans-1,2-Dichloroethene	1.00	0.0189	0.9439	0	106	75.1	126				
1,1-Dichloroethane	0.992	0.0189	0.9439	0	105	68.4	132				
cis-1,2-Dichloroethene	1.01	0.0189	0.9439	0	107	76.2	125				
Chloroform	1.01	0.0189	0.9439	0	107	74.5	127				
1,1,1-Trichloroethane (TCA)	0.962	0.0236	0.9439	0	102	74.5	126				
1,1-Dichloropropene	0.966	0.0189	0.9439	0	102	70.7	128				
Carbon tetrachloride	0.950	0.0472	0.9439	0	101	72.5	126				
1,2-Dichloroethane (EDC)	1.05	0.0189	0.9439	0	111	70.4	128				
Trichloroethene (TCE)	1.00	0.0189	0.9439	0	106	64.7	145				
1,2-Dichloropropane	0.990	0.0189	0.9439	0	105	69.3	129				
Bromodichloromethane	0.994	0.0189	0.9439	0	105	75.9	120				
Dibromomethane	1.02	0.0189	0.9439	0	108	78.5	123				
cis-1,3-Dichloropropene	0.950	0.0189	0.9439	0	101	67.3	122				
trans-1,3-Dichloropropylene	0.943	0.0189	0.9439	0	99.9	64.4	124				
1,1,2-Trichloroethane	1.02	0.0189	0.9439	0	108	72.4	129				
1,3-Dichloropropane	1.01	0.0236	0.9439	0	107	70.5	128				
Tetrachloroethene (PCE)	0.996	0.0236	0.9439	0.03845	101	64.9	140				
Dibromochloromethane	0.949	0.0236	0.9439	0	101	71.8	125				
1,2-Dibromoethane (EDB)	1.01	0.00472	0.9439	0	107	73.8	126				
Chlorobenzene	0.989	0.0236	0.9439	0	105	85.1	118				
1,1,1,2-Tetrachloroethane	1.00	0.0236	0.9439	0	106	82.2	118				
Bromoform	0.970	0.0472	0.9439	0	103	66.1	130				
1,1,2,2-Tetrachloroethane	0.961	0.0189	0.9439	0	102	41.2	150				
Bromobenzene	0.989	0.0189	0.9439	0	105	84.6	121				

Work Order: 2005069
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-018BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 5/11/2020		RunNo: 59119			
Client ID: 358-B3-20		Batch ID: 28293				Analysis Date: 5/12/2020		SeqNo: 1181203			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	0.992	0.0236	0.9439	0	105	78.4	128				
4-Chlorotoluene	0.992	0.0236	0.9439	0	105	81.2	123				
1,2,3-Trichloropropane	0.987	0.0236	0.9439	0	105	66.4	132				
1,2,4-Trichlorobenzene	0.985	0.0236	0.9439	0	104	68.9	139				
1,3-Dichlorobenzene	0.999	0.0189	0.9439	0	106	87.8	120				
1,4-Dichlorobenzene	0.990	0.0189	0.9439	0	105	88.1	119				
1,2-Dichlorobenzene	1.01	0.0189	0.9439	0	107	88.1	120				
1,2-Dibromo-3-chloropropane	1.01	0.472	0.9439	0	107	56.6	144				
Hexachloro-1,3-butadiene	0.887	0.0472	0.9439	0	94.0	64.8	148				
1,2,3-Trichlorobenzene	1.02	0.0189	0.9439	0	108	59.3	150				
Surr: Dibromofluoromethane	1.22		1.180		103	80	116				
Surr: Toluene-d8	1.18		1.180		99.7	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.180		103	82.8	113				

Sample ID: 2005069-018BMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B3-20		Batch ID: 28293				Analysis Date: 5/12/2020			SeqNo: 1181204		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.03	0.0189	0.9439	0	109	-0.64	180	1.109	7.85	30	
Chloromethane	1.09	0.0472	0.9439	0	115	33.2	162	1.106	1.88	30	
Vinyl chloride	0.967	0.0236	0.9439	0	102	47.2	146	1.017	5.09	30	
Bromomethane	1.36	0.0472	0.9439	0	145	18.7	226	1.525	11.1	30	
Trichlorofluoromethane (CFC-11)	0.905	0.0189	0.9439	0	95.8	48.9	158	0.9640	6.35	30	
Chloroethane	1.06	0.0472	0.9439	0	112	20.8	195	1.097	3.65	30	
1,1-Dichloroethene	0.924	0.0189	0.9439	0	97.9	67.1	135	0.9929	7.16	30	
Methylene chloride	0.986	0.0189	0.9439	0	104	64.9	137	1.017	3.12	30	
trans-1,2-Dichloroethene	0.953	0.0189	0.9439	0	101	75.1	126	1.002	5.02	30	
1,1-Dichloroethane	0.955	0.0189	0.9439	0	101	68.4	132	0.9920	3.78	30	
cis-1,2-Dichloroethene	0.962	0.0189	0.9439	0	102	76.2	125	1.009	4.75	30	

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-018BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B3-20	Batch ID: 28293					Analysis Date: 5/12/2020			SeqNo: 1181204		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	0.975	0.0189	0.9439	0	103	74.5	127	1.006	3.16	30	
1,1,1-Trichloroethane (TCA)	0.916	0.0236	0.9439	0	97.1	74.5	126	0.9622	4.89	30	
1,1-Dichloropropene	0.912	0.0189	0.9439	0	96.6	70.7	128	0.9661	5.81	30	
Carbon tetrachloride	0.906	0.0472	0.9439	0	96.0	72.5	126	0.9497	4.70	30	
1,2-Dichloroethane (EDC)	0.995	0.0189	0.9439	0	105	70.4	128	1.046	4.99	30	
Trichloroethene (TCE)	0.954	0.0189	0.9439	0	101	64.7	145	1.002	4.90	30	
1,2-Dichloropropane	0.950	0.0189	0.9439	0	101	69.3	129	0.9898	4.12	30	
Bromodichloromethane	0.963	0.0189	0.9439	0	102	75.9	120	0.9942	3.23	30	
Dibromomethane	0.967	0.0189	0.9439	0	102	78.5	123	1.021	5.43	30	
cis-1,3-Dichloropropene	0.914	0.0189	0.9439	0	96.8	67.3	122	0.9499	3.85	30	
trans-1,3-Dichloropropylene	0.914	0.0189	0.9439	0	96.8	64.4	124	0.9431	3.15	30	
1,1,2-Trichloroethane	0.970	0.0189	0.9439	0	103	72.4	129	1.017	4.75	30	
1,3-Dichloropropane	0.965	0.0236	0.9439	0	102	70.5	128	1.010	4.52	30	
Tetrachloroethene (PCE)	0.948	0.0236	0.9439	0.03845	96.4	64.9	140	0.9957	4.88	30	
Dibromochloromethane	0.941	0.0236	0.9439	0	99.7	71.8	125	0.9492	0.895	30	
1,2-Dibromoethane (EDB)	0.964	0.00472	0.9439	0	102	73.8	126	1.008	4.41	30	
Chlorobenzene	0.954	0.0236	0.9439	0	101	85.1	118	0.9887	3.59	30	
1,1,1,2-Tetrachloroethane	0.965	0.0236	0.9439	0	102	82.2	118	1.001	3.69	30	
Bromoform	0.925	0.0472	0.9439	0	98.0	66.1	130	0.9697	4.69	30	
1,1,2,2-Tetrachloroethane	0.948	0.0189	0.9439	0	100	41.2	150	0.9606	1.33	30	
Bromobenzene	0.965	0.0189	0.9439	0	102	84.6	121	0.9887	2.40	30	
2-Chlorotoluene	0.963	0.0236	0.9439	0	102	78.4	128	0.9921	3.02	30	
4-Chlorotoluene	0.963	0.0236	0.9439	0	102	81.2	123	0.9921	2.97	30	
1,2,3-Trichloropropane	0.960	0.0236	0.9439	0	102	66.4	132	0.9866	2.74	30	
1,2,4-Trichlorobenzene	0.965	0.0236	0.9439	0	102	68.9	139	0.9852	2.04	30	
1,3-Dichlorobenzene	0.965	0.0189	0.9439	0	102	87.8	120	0.9991	3.51	30	
1,4-Dichlorobenzene	0.961	0.0189	0.9439	0	102	88.1	119	0.9899	2.96	30	
1,2-Dichlorobenzene	0.972	0.0189	0.9439	0	103	88.1	120	1.010	3.84	30	
1,2-Dibromo-3-chloropropane	1.01	0.472	0.9439	0	107	56.6	144	1.010	0.339	30	

Work Order: 2005069

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-018BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/11/2020			RunNo: 59119		
Client ID: 358-B3-20	Batch ID: 28293					Analysis Date: 5/12/2020			SeqNo: 1181204		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	0.877	0.0472	0.9439	0	92.9	64.8	148	0.8868	1.09	30	
1,2,3-Trichlorobenzene	0.994	0.0189	0.9439	0	105	59.3	150	1.023	2.90	30	
Surr: Dibromofluoromethane	1.23		1.180		105	80	116		0		
Surr: Toluene-d8	1.18		1.180		99.7	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.21		1.180		103	82.8	113		0		

Client Name: **ONEILL**

Work Order Number: **2005069**

Logged by: **Clare Griggs**

Date Received: **5/8/2020 8:15:00 AM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☒ No ☐ Not Required ☐
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>2^{\circ}\text{C}$ to 6°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp $^{\circ}\text{C}$
Cooler	2.6
Sample	4.8
Temp B Lank	4.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/2/20 Page: 1 of 2

Project Name: F200

Project No: 2001

Collected by: Atkins

Location: FL358

Report To (PM): Atkins

PM Email:

Laboratory Project No (Internal): 20050104
Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client:	OS9		Date/Time		Received	Date/Time
Address:					☒	5/2/20 12:00
City, State, Zip:					☒	5/2/20 12:00
Telephone:					☒	5/2/20 12:00
Fax:					☒	5/2/20 12:00

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Comments
1 358-B1-2.5	5/2/20	9:25	S	
2 -5		9:30		
3 -7.5		10:00		
4 -10		10:10		
5 -15		10:20		
6 -20		10:40		
7 -25		10:50		
8 358-B2-5		12:00		
9 -12.5		12:10		
10 -15		12:25		

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished ☒ Date/Time 5/2/20 12:00

Relinquished ☒ Date/Time 5/2/20 12:00

Turn-around Time: ☒ Standard ☐ 8 Day ☐ 2 Day ☐ Next Day ☐ Same Day (specify)



Fremont

Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/12/20 Page: 2 of:

Project Name: F200

Project No: 2021

Collected by: ATCINS

Location: FL358

Report To (PM): ATCINS

PM Email:

Laboratory Project No (Internal): 20250069

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client:	089																
Address:																	
City, State, Zip:																	
Telephone:																	
Fax:																	
Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	SVOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (801)	Comments
1 358-B32-20	5/12/20	1220	S														
2 1-25		1230	S	X													
3 358-B33-5		1425	S														
4 -2.5		1430	S														
5 -10		1435	S														
6 -12.5		1440	S	X													
7 -15		1445	S														
8 -20		1500	S	X													
9 1210/3500	5/12/20			X													
10																	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time 5/12/20 1700 Received Date/Time 5/18/20 @ 0815

Relinquished Date/Time 5/12/20 1700 Received Date/Time 5/18/20 @ 0815

Relinquished Date/Time 5/12/20 1700 Received Date/Time 5/18/20 @ 0815



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/2/20

Page: 2

Project Name: ESN

Laboratory Project No (internal):

Special Remarks:

20150709

Client: 059

Address:

City, State, Zip:

Telephone:

F-25M:

Report To (PM): Atkins

Sample Disposal: ☐ Return to client ☒ Disposed by Lab/Sec 30-2-2011

PM Email:

[illegible]

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Date/Time	Reinquished
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Received	Date/Time
5/2/20 13:00	11:00

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171001703	5/8/20 10:0815	✓✓✓

Date/Time	Location	Activity	Remarks
10/10/2023 10:00	...	...	...
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DOC 12-22217

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O'Neill Service Group

Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200

Work Order Number: 2005085

May 20, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 21 sample(s) on 5/8/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005085

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005085-001	358-B4-5	05/08/2020 8:20 AM	05/08/2020 4:27 PM
2005085-002	358-B4-10	05/08/2020 8:50 AM	05/08/2020 4:27 PM
2005085-003	358-B4-12.5	05/08/2020 8:55 AM	05/08/2020 4:27 PM
2005085-004	358-B4-15	05/08/2020 9:05 AM	05/08/2020 4:27 PM
2005085-005	358-B4-20	05/08/2020 9:10 AM	05/08/2020 4:27 PM
2005085-006	358-B4-25	05/08/2020 9:15 AM	05/08/2020 4:27 PM
2005085-007	358-B5-2.5	05/08/2020 10:35 AM	05/08/2020 4:27 PM
2005085-008	358-B5-5	05/08/2020 10:40 AM	05/08/2020 4:27 PM
2005085-009	358-B5-7.5	05/08/2020 10:45 AM	05/08/2020 4:27 PM
2005085-010	358-B5-10	05/08/2020 10:50 AM	05/08/2020 4:27 PM
2005085-011	358-B5-12.5	05/08/2020 10:55 AM	05/08/2020 4:27 PM
2005085-012	358-B5-15	05/08/2020 11:00 AM	05/08/2020 4:27 PM
2005085-013	358-B5-20	05/08/2020 11:10 AM	05/08/2020 4:27 PM
2005085-014	358-B5-25	05/08/2020 11:20 AM	05/08/2020 4:27 PM
2005085-015	358-B6-5	05/08/2020 1:05 PM	05/08/2020 4:27 PM
2005085-016	358-B6-7.5	05/08/2020 1:10 PM	05/08/2020 4:27 PM
2005085-017	358-B6-10	05/08/2020 1:20 PM	05/08/2020 4:27 PM
2005085-018	358-B6-12.5	05/08/2020 1:25 PM	05/08/2020 4:27 PM
2005085-019	358-B6-15	05/08/2020 1:35 PM	05/08/2020 4:27 PM
2005085-020	358-B6-20	05/08/2020 1:40 PM	05/08/2020 4:27 PM
2005085-021	358-B6-25	05/08/2020 1:45 PM	05/08/2020 4:27 PM

CLIENT: O'Neill Service Group**Project:** F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

5/20/20: Revision 1 includes additional analysis requested by client.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 9:05:00 AM

Project: F200

Lab ID: 2005085-004

Matrix: Soil

Client Sample ID: 358-B4-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloromethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Vinyl chloride	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromomethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Trichlorofluoromethane (CFC-11)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloroethane	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Methylene chloride	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
trans-1,2-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
cis-1,2-Dichloroethene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chloroform	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,1-Trichloroethane (TCA)	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1-Dichloropropene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Carbon tetrachloride	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichloroethane (EDC)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Trichloroethene (TCE)	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichloropropane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromodichloromethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Dibromomethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
cis-1,3-Dichloropropene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
trans-1,3-Dichloropropylene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,2-Trichloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,3-Dichloropropane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Tetrachloroethene (PCE)	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Dibromochloromethane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dibromoethane (EDB)	ND	0.00688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Chlorobenzene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,1,2-Tetrachloroethane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromoform	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,1,2,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Bromobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
2-Chlorotoluene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
4-Chlorotoluene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,3-Trichloropropane	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,4-Trichlorobenzene	ND	0.0344		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,3-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,4-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2-Dichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 9:05:00 AM

Project: F200

Lab ID: 2005085-004

Matrix: Soil

Client Sample ID: 358-B4-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Hexachloro-1,3-butadiene	ND	0.0688		mg/Kg-dry	1	5/12/2020 12:02:41 PM
1,2,3-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/12/2020 12:02:41 PM
Surr: Dibromofluoromethane	98.0	80 - 116		%Rec	1	5/12/2020 12:02:41 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/12/2020 12:02:41 PM
Surr: 1-Bromo-4-fluorobenzene	96.8	82.8 - 113		%Rec	1	5/12/2020 12:02:41 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	12.9	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 9:10:00 AM

Project: F200

Lab ID: 2005085-005

Matrix: Soil

Client Sample ID: 358-B4-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloromethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Vinyl chloride	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromomethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Trichlorofluoromethane (CFC-11)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloroethane	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Methylene chloride	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
trans-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
cis-1,2-Dichloroethene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chloroform	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,1-Trichloroethane (TCA)	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1-Dichloropropene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Carbon tetrachloride	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichloroethane (EDC)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Trichloroethene (TCE)	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichloropropane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromodichloromethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Dibromomethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
cis-1,3-Dichloropropene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
trans-1,3-Dichloropropylene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,2-Trichloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,3-Dichloropropane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Tetrachloroethene (PCE)	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Dibromochloromethane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dibromoethane (EDB)	ND	0.00588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Chlorobenzene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,1,2-Tetrachloroethane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromoform	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,1,2,2-Tetrachloroethane	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Bromobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
2-Chlorotoluene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
4-Chlorotoluene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,3-Trichloropropane	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,4-Trichlorobenzene	ND	0.0294		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,3-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,4-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 9:10:00 AM

Project: F200

Lab ID: 2005085-005

Matrix: Soil

Client Sample ID: 358-B4-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Hexachloro-1,3-butadiene	ND	0.0588		mg/Kg-dry	1	5/12/2020 1:02:54 PM
1,2,3-Trichlorobenzene	ND	0.0235		mg/Kg-dry	1	5/12/2020 1:02:54 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 1:02:54 PM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/12/2020 1:02:54 PM
Surr: 1-Bromo-4-fluorobenzene	97.8	82.8 - 113		%Rec	1	5/12/2020 1:02:54 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	16.3	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 10:40:00 AM

Project: F200

Lab ID: 2005085-008

Matrix: Soil

Client Sample ID: 358-B5-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloromethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Vinyl chloride	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromomethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Trichlorofluoromethane (CFC-11)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloroethane	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloroethene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Methylene chloride	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
trans-1,2-Dichloroethene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
cis-1,2-Dichloroethene	0.0810	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chloroform	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,1-Trichloroethane (TCA)	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1-Dichloropropene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Carbon tetrachloride	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichloroethane (EDC)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Trichloroethene (TCE)	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichloropropane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromodichloromethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Dibromomethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
cis-1,3-Dichloropropene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
trans-1,3-Dichloropropylene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,2-Trichloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,3-Dichloropropane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Tetrachloroethene (PCE)	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Dibromochloromethane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dibromoethane (EDB)	ND	0.00643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Chlorobenzene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,1,2-Tetrachloroethane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromoform	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,1,2,2-Tetrachloroethane	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Bromobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
2-Chlorotoluene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
4-Chlorotoluene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,3-Trichloropropane	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,4-Trichlorobenzene	ND	0.0321		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,3-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,4-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2-Dichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 10:40:00 AM

Project: F200

Lab ID: 2005085-008

Matrix: Soil

Client Sample ID: 358-B5-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Hexachloro-1,3-butadiene	ND	0.0643		mg/Kg-dry	1	5/12/2020 1:33:00 PM
1,2,3-Trichlorobenzene	ND	0.0257		mg/Kg-dry	1	5/12/2020 1:33:00 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 1:33:00 PM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 1:33:00 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 1:33:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	16.6	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 10:50:00 AM

Project: F200

Lab ID: 2005085-010

Matrix: Soil

Client Sample ID: 358-B5-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloromethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Vinyl chloride	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromomethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Trichlorofluoromethane (CFC-11)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloroethane	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Methylene chloride	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
trans-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
cis-1,2-Dichloroethene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chloroform	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,1-Trichloroethane (TCA)	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1-Dichloropropene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Carbon tetrachloride	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichloroethane (EDC)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Trichloroethene (TCE)	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichloropropane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromodichloromethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Dibromomethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
cis-1,3-Dichloropropene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
trans-1,3-Dichloropropylene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,2-Trichloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,3-Dichloropropane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Tetrachloroethene (PCE)	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Dibromochloromethane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dibromoethane (EDB)	ND	0.00562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Chlorobenzene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,1,2-Tetrachloroethane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromoform	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,1,2,2-Tetrachloroethane	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Bromobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
2-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
4-Chlorotoluene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,3-Trichloropropane	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,4-Trichlorobenzene	ND	0.0281		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,3-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,4-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2-Dichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 10:50:00 AM

Project: F200

Lab ID: 2005085-010

Matrix: Soil

Client Sample ID: 358-B5-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Hexachloro-1,3-butadiene	ND	0.0562		mg/Kg-dry	1	5/12/2020 2:03:08 PM
1,2,3-Trichlorobenzene	ND	0.0225		mg/Kg-dry	1	5/12/2020 2:03:08 PM
Surr: Dibromofluoromethane	95.1	80 - 116		%Rec	1	5/12/2020 2:03:08 PM
Surr: Toluene-d8	99.0	84.8 - 113		%Rec	1	5/12/2020 2:03:08 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	82.8 - 113		%Rec	1	5/12/2020 2:03:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	12.7	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:00:00 AM

Project: F200

Lab ID: 2005085-012

Matrix: Soil

Client Sample ID: 358-B5-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloromethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Vinyl chloride	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromomethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Trichlorofluoromethane (CFC-11)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloroethane	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Methylene chloride	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
trans-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
cis-1,2-Dichloroethene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chloroform	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,1-Trichloroethane (TCA)	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1-Dichloropropene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Carbon tetrachloride	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichloroethane (EDC)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Trichloroethene (TCE)	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichloropropane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromodichloromethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Dibromomethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
cis-1,3-Dichloropropene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
trans-1,3-Dichloropropylene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,2-Trichloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,3-Dichloropropane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Tetrachloroethene (PCE)	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Dibromochloromethane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dibromoethane (EDB)	ND	0.00550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Chlorobenzene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,1,2-Tetrachloroethane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromoform	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,1,2,2-Tetrachloroethane	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Bromobenzene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
2-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
4-Chlorotoluene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,3-Trichloropropane	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,4-Trichlorobenzene	ND	0.0275		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,3-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,4-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2-Dichlorobenzene	ND	0.0220	*	mg/Kg-dry	1	5/20/2020 8:46:33 AM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:00:00 AM

Project: F200

Lab ID: 2005085-012

Matrix: Soil

Client Sample ID: 358-B5-15

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Hexachloro-1,3-butadiene	ND	0.0550		mg/Kg-dry	1	5/20/2020 8:46:33 AM
1,2,3-Trichlorobenzene	ND	0.0220		mg/Kg-dry	1	5/20/2020 8:46:33 AM
Surr: Dibromofluoromethane	99.7	80 - 116		%Rec	1	5/20/2020 8:46:33 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 8:46:33 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	82.8 - 113		%Rec	1	5/20/2020 8:46:33 AM

NOTES:

* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R59252

Analyst: EH

Percent Moisture	14.4	0.500		wt%	1	5/19/2020 12:14:02 PM
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Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:10:00 AM

Project: F200

Lab ID: 2005085-013

Matrix: Soil

Client Sample ID: 358-B5-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloromethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Vinyl chloride	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromomethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Trichlorofluoromethane (CFC-11)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloroethane	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Methylene chloride	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
trans-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
cis-1,2-Dichloroethene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chloroform	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,1-Trichloroethane (TCA)	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1-Dichloropropene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Carbon tetrachloride	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichloroethane (EDC)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Trichloroethene (TCE)	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichloropropane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromodichloromethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Dibromomethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
cis-1,3-Dichloropropene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
trans-1,3-Dichloropropylene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,2-Trichloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,3-Dichloropropane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Tetrachloroethene (PCE)	0.358	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Dibromochloromethane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dibromoethane (EDB)	ND	0.00469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Chlorobenzene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,1,2-Tetrachloroethane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromoform	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,1,2,2-Tetrachloroethane	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Bromobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
2-Chlorotoluene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
4-Chlorotoluene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,3-Trichloropropane	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,4-Trichlorobenzene	ND	0.0234		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,3-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,4-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2-Dichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:10:00 AM

Project: F200

Lab ID: 2005085-013

Matrix: Soil

Client Sample ID: 358-B5-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Hexachloro-1,3-butadiene	ND	0.0469		mg/Kg-dry	1	5/12/2020 2:33:14 PM
1,2,3-Trichlorobenzene	ND	0.0188		mg/Kg-dry	1	5/12/2020 2:33:14 PM
Surr: Dibromofluoromethane	97.3	80 - 116		%Rec	1	5/12/2020 2:33:14 PM
Surr: Toluene-d8	99.7	84.8 - 113		%Rec	1	5/12/2020 2:33:14 PM
Surr: 1-Bromo-4-fluorobenzene	95.8	82.8 - 113		%Rec	1	5/12/2020 2:33:14 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	11.6	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:20:00 AM

Project: F200

Lab ID: 2005085-014

Matrix: Soil

Client Sample ID: 358-B5-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloromethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Vinyl chloride	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromomethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Trichlorofluoromethane (CFC-11)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloroethane	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Methylene chloride	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
trans-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
cis-1,2-Dichloroethene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chloroform	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,1-Trichloroethane (TCA)	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1-Dichloropropene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Carbon tetrachloride	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichloroethane (EDC)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Trichloroethene (TCE)	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichloropropane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromodichloromethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Dibromomethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
cis-1,3-Dichloropropene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
trans-1,3-Dichloropropylene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,2-Trichloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,3-Dichloropropane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Tetrachloroethene (PCE)	0.123	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Dibromochloromethane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dibromoethane (EDB)	ND	0.00590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Chlorobenzene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,1,2-Tetrachloroethane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromoform	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,1,2,2-Tetrachloroethane	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Bromobenzene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
2-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
4-Chlorotoluene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,3-Trichloropropane	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,4-Trichlorobenzene	ND	0.0295		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,3-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,4-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2-Dichlorobenzene	ND	0.0236	*	mg/Kg-dry	1	5/20/2020 9:16:43 AM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 11:20:00 AM

Project: F200

Lab ID: 2005085-014

Matrix: Soil

Client Sample ID: 358-B5-25

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28369

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Hexachloro-1,3-butadiene	ND	0.0590		mg/Kg-dry	1	5/20/2020 9:16:43 AM
1,2,3-Trichlorobenzene	ND	0.0236		mg/Kg-dry	1	5/20/2020 9:16:43 AM
Surr: Dibromofluoromethane	107	80 - 116		%Rec	1	5/20/2020 9:16:43 AM
Surr: Toluene-d8	101	84.8 - 113		%Rec	1	5/20/2020 9:16:43 AM
Surr: 1-Bromo-4-fluorobenzene	100	82.8 - 113		%Rec	1	5/20/2020 9:16:43 AM

NOTES:

* - Flagged value is not within established control limits.

Sample Moisture (Percent Moisture)

Batch ID: R59252

Analyst: EH

Percent Moisture	15.0	0.500		wt%	1	5/19/2020 12:14:02 PM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:05:00 PM

Project: F200

Lab ID: 2005085-015

Matrix: Soil

Client Sample ID: 358-B6-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloromethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Vinyl chloride	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromomethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Trichlorofluoromethane (CFC-11)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloroethane	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloroethene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Methylene chloride	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
trans-1,2-Dichloroethene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
cis-1,2-Dichloroethene	0.0949	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chloroform	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,1-Trichloroethane (TCA)	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1-Dichloropropene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Carbon tetrachloride	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichloroethane (EDC)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Trichloroethene (TCE)	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichloropropane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromodichloromethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Dibromomethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
cis-1,3-Dichloropropene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
trans-1,3-Dichloropropylene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,2-Trichloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,3-Dichloropropane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Tetrachloroethene (PCE)	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Dibromochloromethane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dibromoethane (EDB)	ND	0.00790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Chlorobenzene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,1,2-Tetrachloroethane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromoform	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,1,2,2-Tetrachloroethane	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Bromobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
2-Chlorotoluene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
4-Chlorotoluene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,3-Trichloropropane	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,4-Trichlorobenzene	ND	0.0395		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,3-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,4-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2-Dichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:05:00 PM

Project: F200

Lab ID: 2005085-015

Matrix: Soil

Client Sample ID: 358-B6-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Hexachloro-1,3-butadiene	ND	0.0790		mg/Kg-dry	1	5/12/2020 3:03:21 PM
1,2,3-Trichlorobenzene	ND	0.0316		mg/Kg-dry	1	5/12/2020 3:03:21 PM
Surr: Dibromofluoromethane	99.1	80 - 116		%Rec	1	5/12/2020 3:03:21 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/12/2020 3:03:21 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 3:03:21 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	32.5	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:20:00 PM

Project: F200

Lab ID: 2005085-017

Matrix: Soil

Client Sample ID: 358-B6-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloromethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Vinyl chloride	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromomethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Trichlorofluoromethane (CFC-11)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloroethane	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Methylene chloride	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
trans-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
cis-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chloroform	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,1-Trichloroethane (TCA)	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1-Dichloropropene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Carbon tetrachloride	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichloroethane (EDC)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Trichloroethene (TCE)	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichloropropane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromodichloromethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Dibromomethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
cis-1,3-Dichloropropene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
trans-1,3-Dichloropropylene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,2-Trichloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,3-Dichloropropane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Tetrachloroethene (PCE)	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Dibromochloromethane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dibromoethane (EDB)	ND	0.00467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Chlorobenzene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,1,2-Tetrachloroethane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromoform	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,1,2,2-Tetrachloroethane	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Bromobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
2-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
4-Chlorotoluene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,3-Trichloropropane	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,4-Trichlorobenzene	ND	0.0233		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,3-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,4-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:20:00 PM

Project: F200

Lab ID: 2005085-017

Matrix: Soil

Client Sample ID: 358-B6-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Hexachloro-1,3-butadiene	ND	0.0467		mg/Kg-dry	1	5/12/2020 3:33:29 PM
1,2,3-Trichlorobenzene	ND	0.0187		mg/Kg-dry	1	5/12/2020 3:33:29 PM
Surr: Dibromofluoromethane	98.2	80 - 116		%Rec	1	5/12/2020 3:33:29 PM
Surr: Toluene-d8	100	84.8 - 113		%Rec	1	5/12/2020 3:33:29 PM
Surr: 1-Bromo-4-fluorobenzene	96.4	82.8 - 113		%Rec	1	5/12/2020 3:33:29 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	12.9	0.500		wt%	1	5/12/2020 9:40:39 AM
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Analytical Report

Work Order: 2005085

Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:40:00 PM

Project: F200

Lab ID: 2005085-020

Matrix: Soil

Client Sample ID: 358-B6-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloromethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Vinyl chloride	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromomethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Trichlorofluoromethane (CFC-11)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloroethane	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Methylene chloride	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
trans-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
cis-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chloroform	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,1-Trichloroethane (TCA)	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1-Dichloropropene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Carbon tetrachloride	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichloroethane (EDC)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Trichloroethene (TCE)	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichloropropane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromodichloromethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Dibromomethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
cis-1,3-Dichloropropene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
trans-1,3-Dichloropropylene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,2-Trichloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,3-Dichloropropane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Tetrachloroethene (PCE)	0.0269	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Dibromochloromethane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dibromoethane (EDB)	ND	0.00491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Chlorobenzene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,1,2-Tetrachloroethane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromoform	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,1,2,2-Tetrachloroethane	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Bromobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
2-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
4-Chlorotoluene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,3-Trichloropropane	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,4-Trichlorobenzene	ND	0.0246		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,3-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,4-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM



Analytical Report

Work Order: 2005085
Date Reported: 5/20/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 1:40:00 PM

Project: F200

Lab ID: 2005085-020

Matrix: Soil

Client Sample ID: 358-B6-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Hexachloro-1,3-butadiene	ND	0.0491		mg/Kg-dry	1	5/12/2020 4:03:39 PM
1,2,3-Trichlorobenzene	ND	0.0197		mg/Kg-dry	1	5/12/2020 4:03:39 PM
Surr: Dibromofluoromethane	97.9	80 - 116		%Rec	1	5/12/2020 4:03:39 PM
Surr: Toluene-d8	99.2	84.8 - 113		%Rec	1	5/12/2020 4:03:39 PM
Surr: 1-Bromo-4-fluorobenzene	97.2	82.8 - 113		%Rec	1	5/12/2020 4:03:39 PM

Sample Moisture (Percent Moisture)

Batch ID: R59116

Analyst: MM

Percent Moisture	10.1	0.500		wt%	1	5/12/2020 9:40:39 AM
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Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28369	SampType: LCS	Units: mg/Kg				Prep Date: 5/19/2020		RunNo: 59275			
Client ID: LCSS	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184677			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.945	0.0200	1.000	0	94.5	21.6	169				
Chloromethane	0.944	0.0500	1.000	0	94.4	45.3	153				
Vinyl chloride	0.929	0.0250	1.000	0	92.9	57.5	137				
Bromomethane	0.918	0.0500	1.000	0	91.8	32.8	194				
Trichlorofluoromethane (CFC-11)	0.957	0.0200	1.000	0	95.7	54.3	152				
Chloroethane	0.954	0.0500	1.000	0	95.4	52	146				
1,1-Dichloroethene	0.941	0.0200	1.000	0	94.1	62.8	139				
Methylene chloride	0.952	0.0200	1.000	0	95.2	78.4	118				
trans-1,2-Dichloroethene	0.954	0.0200	1.000	0	95.4	82	117				
1,1-Dichloroethane	0.959	0.0200	1.000	0	95.9	78	119				
cis-1,2-Dichloroethene	0.978	0.0200	1.000	0	97.8	81.9	116				
Chloroform	0.960	0.0200	1.000	0	96.0	80.8	117				
1,1,1-Trichloroethane (TCA)	0.962	0.0250	1.000	0	96.2	81.4	117				
1,1-Dichloropropene	0.952	0.0200	1.000	0	95.2	79.9	117				
Carbon tetrachloride	0.944	0.0500	1.000	0	94.4	80.4	117				
1,2-Dichloroethane (EDC)	0.969	0.0200	1.000	0	96.9	77.5	117				
Trichloroethene (TCE)	0.944	0.0200	1.000	0	94.4	83.4	115				
1,2-Dichloropropane	0.959	0.0200	1.000	0	95.9	77.6	117				
Bromodichloromethane	0.952	0.0200	1.000	0	95.2	78.9	116				
Dibromomethane	0.972	0.0200	1.000	0	97.2	81.2	115				
cis-1,3-Dichloropropene	0.963	0.0200	1.000	0	96.3	78	115				
trans-1,3-Dichloropropylene	0.955	0.0200	1.000	0	95.5	75.7	117				
1,1,2-Trichloroethane	0.948	0.0200	1.000	0	94.8	77.9	118				
1,3-Dichloropropane	0.943	0.0250	1.000	0	94.3	77.1	118				
Tetrachloroethene (PCE)	0.937	0.0250	1.000	0	93.7	84.3	117				
Dibromochloromethane	0.951	0.0250	1.000	0	95.1	77.9	118				
1,2-Dibromoethane (EDB)	0.953	0.00500	1.000	0	95.3	78.6	117				
Chlorobenzene	0.946	0.0250	1.000	0	94.6	86.5	113				
1,1,1,2-Tetrachloroethane	0.920	0.0250	1.000	0	92.0	84.8	113				

Work Order: 2005085

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28369	SampType: LCS	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: LCSS	Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184677		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.922	0.0500	1.000	0	92.2	70.7	125				
1,1,2,2-Tetrachloroethane	0.927	0.0200	1.000	0	92.7	68.3	125				
Bromobenzene	0.963	0.0200	1.000	0	96.3	84	117				
2-Chlorotoluene	0.966	0.0250	1.000	0	96.6	80.4	122				
4-Chlorotoluene	0.969	0.0250	1.000	0	96.9	83.1	118				
1,2,3-Trichloropropane	0.954	0.0250	1.000	0	95.4	71	125				
1,2,4-Trichlorobenzene	0.956	0.0250	1.000	0	95.6	81	126				
1,3-Dichlorobenzene	0.890	0.0200	1.000	0	89.0	90.4	115				S
1,4-Dichlorobenzene	0.875	0.0200	1.000	0	87.5	90.3	115				S
1,2-Dichlorobenzene	0.884	0.0200	1.000	0	88.4	90.3	115				S
1,2-Dibromo-3-chloropropane	0.953	0.500	1.000	0	95.3	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.932	0.0200	1.000	0	93.2	75.9	130				
Surr: Dibromofluoromethane	1.35		1.250		108	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	82.8	113				

NOTES:

S - Outlying spike recovery observed (low bias). Samples will be qualified with a *.

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: MBLKS	Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184678		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									



Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: MBLKS	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184678			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28369	SampType: MBLK	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: MBLKS	Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184678		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.0200									*
1,4-Dichlorobenzene	ND	0.0200									*
1,2-Dichlorobenzene	ND	0.0200									*
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.22		1.250		97.4	80	116				
Surr: Toluene-d8	1.26		1.250		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	82.8	113				

NOTES:

* - Flagged value is not within established control limits.

Sample ID: 2005069-017BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184667			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0171						0		30	
Chloromethane	ND	0.0427						0		30	
Vinyl chloride	ND	0.0214						0		30	
Bromomethane	ND	0.0427						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0171						0		30	
Chloroethane	ND	0.0427						0		30	
1,1-Dichloroethene	ND	0.0171						0		30	
Methylene chloride	ND	0.0171						0		30	
trans-1,2-Dichloroethene	ND	0.0171						0		30	
1,1-Dichloroethane	ND	0.0171						0		30	
cis-1,2-Dichloroethene	0.0653	0.0171						0.06688	2.35	30	
Chloroform	ND	0.0171						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0214						0		30	
1,1-Dichloropropene	ND	0.0171						0		30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH		Batch ID: 28369		Analysis Date: 5/20/2020						SeqNo: 1184667	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0427						0		30	
1,2-Dichloroethane (EDC)	ND	0.0171						0		30	
Trichloroethene (TCE)	0.0378	0.0171						0.03793	0.371	30	
1,2-Dichloropropane	ND	0.0171						0		30	
Bromodichloromethane	ND	0.0171						0		30	
Dibromomethane	ND	0.0171						0		30	
cis-1,3-Dichloropropene	ND	0.0171						0		30	
trans-1,3-Dichloropropylene	ND	0.0171						0		30	
1,1,2-Trichloroethane	ND	0.0171						0		30	
1,3-Dichloropropane	ND	0.0214						0		30	
Tetrachloroethene (PCE)	0.115	0.0214						0.1215	5.82	30	
Dibromochloromethane	ND	0.0214						0		30	
1,2-Dibromoethane (EDB)	ND	0.00427						0		30	
Chlorobenzene	ND	0.0214						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0214						0		30	
Bromoform	ND	0.0427						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0171						0		30	
Bromobenzene	ND	0.0171						0		30	
2-Chlorotoluene	ND	0.0214						0		30	
4-Chlorotoluene	ND	0.0214						0		30	
1,2,3-Trichloropropane	ND	0.0214						0		30	
1,2,4-Trichlorobenzene	ND	0.0214						0		30	
1,3-Dichlorobenzene	ND	0.0171						0		30	*
1,4-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dichlorobenzene	ND	0.0171						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.427						0		30	
Hexachloro-1,3-butadiene	ND	0.0427						0		30	
1,2,3-Trichlorobenzene	ND	0.0171						0		30	
Surr: Dibromofluoromethane	1.06		1.068		99.1	80	116		0		

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005069-017BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/19/2020			RunNo: 59275			
Client ID: BATCH		Batch ID: 28369					Analysis Date: 5/20/2020			SeqNo: 1184667		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Toluene-d8	1.07		1.068		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.04		1.068		97.9	82.8	113		0		

NOTES:

* - Flagged value is not within established control limits.

Sample ID: 2005214-026BDUP	SampType: DUP	Units: mg/Kg				Prep Date: 5/19/2020				RunNo: 59275		
Client ID: BATCH	Batch ID: 28369					Analysis Date: 5/20/2020				SeqNo: 1184671		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0177						0		30	
Chloromethane	ND	0.0441						0		30	
Vinyl chloride	ND	0.0221						0		30	
Bromomethane	ND	0.0441						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0177						0		30	
Chloroethane	ND	0.0441						0		30	
1,1-Dichloroethene	ND	0.0177						0		30	
Methylene chloride	ND	0.0177						0		30	
trans-1,2-Dichloroethene	ND	0.0177						0		30	
1,1-Dichloroethane	ND	0.0177						0		30	
cis-1,2-Dichloroethene	ND	0.0177						0		30	
Chloroform	ND	0.0177						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0221						0		30	
1,1-Dichloropropene	ND	0.0177						0		30	
Carbon tetrachloride	ND	0.0441						0		30	
1,2-Dichloroethane (EDC)	ND	0.0177						0		30	
Trichloroethene (TCE)	ND	0.0177						0		30	
1,2-Dichloropropane	ND	0.0177						0		30	
Bromodichloromethane	ND	0.0177						0		30	
Dibromomethane	ND	0.0177						0		30	
cis-1,3-Dichloropropene	ND	0.0177						0		30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-026BDUP	SampType: DUP	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184671			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropylene	ND	0.0177						0		30	
1,1,2-Trichloroethane	ND	0.0177						0		30	
1,3-Dichloropropane	ND	0.0221						0		30	
Tetrachloroethene (PCE)	ND	0.0221						0		30	
Dibromochloromethane	ND	0.0221						0		30	
1,2-Dibromoethane (EDB)	ND	0.00441						0		30	
Chlorobenzene	ND	0.0221						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0221						0		30	
Bromoform	ND	0.0441						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0177						0		30	
Bromobenzene	ND	0.0177						0		30	
2-Chlorotoluene	ND	0.0221						0		30	
4-Chlorotoluene	ND	0.0221						0		30	
1,2,3-Trichloropropane	ND	0.0221						0		30	
1,2,4-Trichlorobenzene	ND	0.0221						0		30	
1,3-Dichlorobenzene	ND	0.0177						0		30	*
1,4-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dichlorobenzene	ND	0.0177						0		30	*
1,2-Dibromo-3-chloropropane	ND	0.441						0		30	
Hexachloro-1,3-butadiene	ND	0.0441						0		30	
1,2,3-Trichlorobenzene	ND	0.0177						0		30	
Surr: Dibromofluoromethane	1.15		1.104		104	80	116		0		
Surr: Toluene-d8	1.12		1.104		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.09		1.104		98.6	82.8	113		0		

NOTES:

* - Flagged value is not within established control limits.

Work Order: 2005085

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMS	SampType: MS	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184673			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.841	0.0186	0.9294	0	90.4	-0.64	180				
Chloromethane	0.882	0.0465	0.9294	0	94.9	33.2	162				
Vinyl chloride	0.884	0.0232	0.9294	0	95.1	47.2	146				
Bromomethane	0.949	0.0465	0.9294	0	102	18.7	226				
Trichlorofluoromethane (CFC-11)	0.847	0.0186	0.9294	0	91.1	48.9	158				
Chloroethane	0.968	0.0465	0.9294	0	104	20.8	195				
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135				
Methylene chloride	0.933	0.0186	0.9294	0	100	64.9	137				
trans-1,2-Dichloroethene	0.907	0.0186	0.9294	0	97.5	75.1	126				
1,1-Dichloroethane	0.938	0.0186	0.9294	0	101	68.4	132				
cis-1,2-Dichloroethene	0.989	0.0186	0.9294	0.04170	102	76.2	125				
Chloroform	0.932	0.0186	0.9294	0	100	74.5	127				
1,1,1-Trichloroethane (TCA)	0.898	0.0232	0.9294	0	96.6	74.5	126				
1,1-Dichloropropene	0.885	0.0186	0.9294	0	95.3	70.7	128				
Carbon tetrachloride	0.883	0.0465	0.9294	0	95.0	72.5	126				
1,2-Dichloroethane (EDC)	0.961	0.0186	0.9294	0	103	70.4	128				
Trichloroethene (TCE)	0.910	0.0186	0.9294	0	97.9	64.7	145				
1,2-Dichloropropane	0.940	0.0186	0.9294	0	101	69.3	129				
Bromodichloromethane	0.934	0.0186	0.9294	0	100	75.9	120				
Dibromomethane	0.970	0.0186	0.9294	0	104	78.5	123				
cis-1,3-Dichloropropene	0.878	0.0186	0.9294	0	94.5	67.3	122				
trans-1,3-Dichloropropylene	0.869	0.0186	0.9294	0	93.5	64.4	124				
1,1,2-Trichloroethane	0.927	0.0186	0.9294	0	99.7	72.4	129				
1,3-Dichloropropane	0.945	0.0232	0.9294	0	102	70.5	128				
Tetrachloroethene (PCE)	0.870	0.0232	0.9294	0	93.6	64.9	140				
Dibromochloromethane	0.946	0.0232	0.9294	0	102	71.8	125				
1,2-Dibromoethane (EDB)	0.941	0.00465	0.9294	0	101	73.8	126				
Chlorobenzene	0.902	0.0232	0.9294	0	97.1	85.1	118				
1,1,1,2-Tetrachloroethane	0.885	0.0232	0.9294	0	95.2	82.2	118				

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMS		SampType: MS		Units: mg/Kg		Prep Date: 5/19/2020		RunNo: 59275			
Client ID: BATCH		Batch ID: 28369				Analysis Date: 5/20/2020		SeqNo: 1184673			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.881	0.0465	0.9294	0	94.8	66.1	130				
1,1,2,2-Tetrachloroethane	0.933	0.0186	0.9294	0	100	41.2	150				
Bromobenzene	0.904	0.0186	0.9294	0	97.3	84.6	121				
2-Chlorotoluene	0.886	0.0232	0.9294	0	95.3	78.4	128				
4-Chlorotoluene	0.901	0.0232	0.9294	0	97.0	81.2	123				
1,2,3-Trichloropropane	0.975	0.0232	0.9294	0	105	66.4	132				
1,2,4-Trichlorobenzene	0.886	0.0232	0.9294	0	95.3	68.9	139				
1,3-Dichlorobenzene	0.834	0.0186	0.9294	0	89.8	87.8	120				
1,4-Dichlorobenzene	0.828	0.0186	0.9294	0	89.1	88.1	119				
1,2-Dichlorobenzene	0.851	0.0186	0.9294	0	91.6	88.1	120				
1,2-Dibromo-3-chloropropane	0.877	0.465	0.9294	0	94.3	56.6	144				
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148				
1,2,3-Trichlorobenzene	0.889	0.0186	0.9294	0	95.7	59.3	150				
Surr: Dibromofluoromethane	1.27		1.162		109	80	116				
Surr: Toluene-d8	1.19		1.162		102	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.162		103	82.8	113				

Sample ID: 2005214-028BMSD		SampType: MSD		Units: mg/Kg		Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH		Batch ID: 28369		Analysis Date: 5/20/2020						SeqNo: 1184674	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.853	0.0186	0.9294	0	91.8	-0.64	180	0.8406	1.50	30	
Chloromethane	0.920	0.0465	0.9294	0	98.9	33.2	162	0.8824	4.12	30	
Vinyl chloride	0.890	0.0232	0.9294	0	95.8	47.2	146	0.8842	0.660	30	
Bromomethane	0.899	0.0465	0.9294	0	96.8	18.7	226	0.9493	5.39	30	
Trichlorofluoromethane (CFC-11)	0.849	0.0186	0.9294	0	91.3	48.9	158	0.8470	0.203	30	
Chloroethane	1.01	0.0465	0.9294	0	109	20.8	195	0.9683	4.22	30	
1,1-Dichloroethene	0.883	0.0186	0.9294	0	95.0	67.1	135	0.8826	0.0751	30	
Methylene chloride	0.972	0.0186	0.9294	0	105	64.9	137	0.9329	4.13	30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMSD	SampType: MSD	Units: mg/Kg			Prep Date: 5/19/2020			RunNo: 59275			
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020						SeqNo: 1184674			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	0.902	0.0186	0.9294	0	97.0	75.1	126	0.9066	0.534	30	
1,1-Dichloroethane	0.942	0.0186	0.9294	0	101	68.4	132	0.9375	0.507	30	
cis-1,2-Dichloroethene	0.969	0.0186	0.9294	0.04170	99.7	76.2	125	0.9893	2.12	30	
Chloroform	0.939	0.0186	0.9294	0	101	74.5	127	0.9322	0.684	30	
1,1,1-Trichloroethane (TCA)	0.899	0.0232	0.9294	0	96.7	74.5	126	0.8982	0.0881	30	
1,1-Dichloropropene	0.863	0.0186	0.9294	0	92.8	70.7	128	0.8854	2.61	30	
Carbon tetrachloride	0.887	0.0465	0.9294	0	95.4	72.5	126	0.8828	0.484	30	
1,2-Dichloroethane (EDC)	0.950	0.0186	0.9294	0	102	70.4	128	0.9614	1.19	30	
Trichloroethene (TCE)	0.902	0.0186	0.9294	0	97.0	64.7	145	0.9100	0.912	30	
1,2-Dichloropropane	0.925	0.0186	0.9294	0	99.5	69.3	129	0.9402	1.65	30	
Bromodichloromethane	0.950	0.0186	0.9294	0	102	75.9	120	0.9338	1.77	30	
Dibromomethane	0.967	0.0186	0.9294	0	104	78.5	123	0.9705	0.399	30	
cis-1,3-Dichloropropene	0.867	0.0186	0.9294	0	93.2	67.3	122	0.8781	1.31	30	
trans-1,3-Dichloropropylene	0.868	0.0186	0.9294	0	93.4	64.4	124	0.8688	0.0743	30	
1,1,2-Trichloroethane	0.933	0.0186	0.9294	0	100	72.4	129	0.9267	0.676	30	
1,3-Dichloropropane	0.934	0.0232	0.9294	0	101	70.5	128	0.9447	1.10	30	
Tetrachloroethene (PCE)	0.860	0.0232	0.9294	0	92.5	64.9	140	0.8700	1.16	30	
Dibromochloromethane	0.945	0.0232	0.9294	0	102	71.8	125	0.9462	0.142	30	
1,2-Dibromoethane (EDB)	0.940	0.00465	0.9294	0	101	73.8	126	0.9408	0.0314	30	
Chlorobenzene	0.907	0.0232	0.9294	0	97.6	85.1	118	0.9023	0.500	30	
1,1,1,2-Tetrachloroethane	0.906	0.0232	0.9294	0	97.5	82.2	118	0.8848	2.35	30	
Bromoform	0.905	0.0465	0.9294	0	97.4	66.1	130	0.8811	2.73	30	
1,1,2,2-Tetrachloroethane	0.958	0.0186	0.9294	0	103	41.2	150	0.9329	2.61	30	
Bromobenzene	0.938	0.0186	0.9294	0	101	84.6	121	0.9040	3.74	30	
2-Chlorotoluene	0.915	0.0232	0.9294	0	98.4	78.4	128	0.8860	3.22	30	
4-Chlorotoluene	0.925	0.0232	0.9294	0	99.5	81.2	123	0.9012	2.61	30	
1,2,3-Trichloropropane	0.951	0.0232	0.9294	0	102	66.4	132	0.9747	2.50	30	
1,2,4-Trichlorobenzene	0.892	0.0232	0.9294	0	96.0	68.9	139	0.8861	0.653	30	
1,3-Dichlorobenzene	0.843	0.0186	0.9294	0	90.7	87.8	120	0.8343	1.06	30	

Work Order: 2005085

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005214-028BMSD	SampType: MSD	Units: mg/Kg				Prep Date: 5/19/2020			RunNo: 59275		
Client ID: BATCH	Batch ID: 28369	Analysis Date: 5/20/2020							SeqNo: 1184674		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	0.830	0.0186	0.9294	0	89.3	88.1	119	0.8283	0.177	30	
1,2-Dichlorobenzene	0.862	0.0186	0.9294	0	92.8	88.1	120	0.8511	1.32	30	
1,2-Dibromo-3-chloropropane	0.969	0.465	0.9294	0	104	56.6	144	0.8765	10.0	30	
Hexachloro-1,3-butadiene	0.885	0.0465	0.9294	0	95.2	64.8	148	0.8845	0.0647	30	
1,2,3-Trichlorobenzene	0.902	0.0186	0.9294	0	97.1	59.3	150	0.8893	1.43	30	
Surr: Dibromofluoromethane	1.28		1.162		110	80	116		0		
Surr: Toluene-d8	1.17		1.162		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.22		1.162		105	82.8	113		0		

Work Order: 2005085

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28305	SampType: LCS	Units: mg/Kg				Prep Date: 5/12/2020		RunNo: 59171			
Client ID: LCSS	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182320			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.10	0.0200	1.000	0	110	21.6	169				
Chloromethane	0.985	0.0500	1.000	0	98.5	45.3	153				
Vinyl chloride	0.970	0.0250	1.000	0	97.0	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	54.3	152				
Chloroethane	0.925	0.0500	1.000	0	92.5	52	146				
1,1-Dichloroethene	1.04	0.0200	1.000	0	104	62.8	139				
Methylene chloride	1.00	0.0200	1.000	0	100	78.4	118				
trans-1,2-Dichloroethene	1.02	0.0200	1.000	0	102	82	117				
1,1-Dichloroethane	0.973	0.0200	1.000	0	97.3	78	119				
cis-1,2-Dichloroethene	0.993	0.0200	1.000	0	99.3	81.9	116				
Chloroform	1.00	0.0200	1.000	0	100	80.8	117				
1,1,1-Trichloroethane (TCA)	1.00	0.0250	1.000	0	100	81.4	117				
1,1-Dichloropropene	0.997	0.0200	1.000	0	99.7	79.9	117				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	80.4	117				
1,2-Dichloroethane (EDC)	0.988	0.0200	1.000	0	98.8	77.5	117				
Trichloroethene (TCE)	1.00	0.0200	1.000	0	100	83.4	115				
1,2-Dichloropropane	0.937	0.0200	1.000	0	93.7	77.6	117				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	78.9	116				
Dibromomethane	0.951	0.0200	1.000	0	95.1	81.2	115				
cis-1,3-Dichloropropene	0.939	0.0200	1.000	0	93.9	78	115				
trans-1,3-Dichloropropylene	0.916	0.0200	1.000	0	91.6	75.7	117				
1,1,2-Trichloroethane	0.935	0.0200	1.000	0	93.5	77.9	118				
1,3-Dichloropropane	0.933	0.0250	1.000	0	93.3	77.1	118				
Tetrachloroethene (PCE)	0.982	0.0250	1.000	0	98.2	84.3	117				
Dibromochloromethane	0.921	0.0250	1.000	0	92.1	77.9	118				
1,2-Dibromoethane (EDB)	0.933	0.00500	1.000	0	93.3	78.6	117				
Chlorobenzene	0.997	0.0250	1.000	0	99.7	86.5	113				
1,1,1,2-Tetrachloroethane	0.991	0.0250	1.000	0	99.1	84.8	113				

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28305	SampType: LCS	Units: mg/Kg				Prep Date: 5/12/2020		RunNo: 59171			
Client ID: LCSS	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182320			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	0.914	0.0500	1.000	0	91.4	70.7	125				
1,1,2,2-Tetrachloroethane	0.883	0.0200	1.000	0	88.3	68.3	125				
Bromobenzene	0.977	0.0200	1.000	0	97.7	84	117				
2-Chlorotoluene	1.01	0.0250	1.000	0	101	80.4	122				
4-Chlorotoluene	1.00	0.0250	1.000	0	100	83.1	118				
1,2,3-Trichloropropane	0.907	0.0250	1.000	0	90.7	71	125				
1,2,4-Trichlorobenzene	1.00	0.0250	1.000	0	100	81	126				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	90.4	115				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dibromo-3-chloropropane	0.955	0.500	1.000	0	95.5	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.971	0.0200	1.000	0	97.1	75.9	130				
Surr: Dibromofluoromethane	1.32		1.250		105	80	116				
Surr: Toluene-d8	1.22		1.250		97.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	82.8	113				

Sample ID: MB-28305	SampType: MBLK	Units: mg/Kg				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: MBLKS	Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182321		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28305	SampType: MBLK	Units: mg/Kg			Prep Date: 5/12/2020			RunNo: 59171			
Client ID: MBLKS	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182321			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28305	SampType: MBLK	Units: mg/Kg			Prep Date: 5/12/2020			RunNo: 59171			
Client ID: MBLKS	Batch ID: 28305				Analysis Date: 5/12/2020			SeqNo: 1182321			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									
Surr: Dibromofluoromethane	1.16		1.250		92.5	80	116				
Surr: Toluene-d8	1.22		1.250		97.8	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	82.8	113				

Sample ID: 2005085-004BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B4-15	Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182297		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0275						0		30	
Chloromethane	ND	0.0688						0		30	
Vinyl chloride	ND	0.0344						0		30	
Bromomethane	ND	0.0688						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0275						0		30	
Chloroethane	ND	0.0688						0		30	
1,1-Dichloroethene	ND	0.0275						0		30	
Methylene chloride	ND	0.0275						0		30	
trans-1,2-Dichloroethene	ND	0.0275						0		30	
1,1-Dichloroethane	ND	0.0275						0		30	
cis-1,2-Dichloroethene	ND	0.0275						0		30	
Chloroform	ND	0.0275						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0344						0		30	
1,1-Dichloropropene	ND	0.0275						0		30	
Carbon tetrachloride	ND	0.0688						0		30	
1,2-Dichloroethane (EDC)	ND	0.0275						0		30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-004BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B4-15	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182297			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.0275						0		30	
1,2-Dichloropropane	ND	0.0275						0		30	
Bromodichloromethane	ND	0.0275						0		30	
Dibromomethane	ND	0.0275						0		30	
cis-1,3-Dichloropropene	ND	0.0275						0		30	
trans-1,3-Dichloropropylene	ND	0.0275						0		30	
1,1,2-Trichloroethane	ND	0.0275						0		30	
1,3-Dichloropropane	ND	0.0344						0		30	
Tetrachloroethene (PCE)	ND	0.0344						0		30	
Dibromochloromethane	ND	0.0344						0		30	
1,2-Dibromoethane (EDB)	ND	0.00688						0		30	
Chlorobenzene	ND	0.0344						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0344						0		30	
Bromoform	ND	0.0688						0		30	
1,1,1,2,2-Tetrachloroethane	ND	0.0275						0		30	
Bromobenzene	ND	0.0275						0		30	
2-Chlorotoluene	ND	0.0344						0		30	
4-Chlorotoluene	ND	0.0344						0		30	
1,2,3-Trichloropropane	ND	0.0344						0		30	
1,2,4-Trichlorobenzene	ND	0.0344						0		30	
1,3-Dichlorobenzene	ND	0.0275						0		30	
1,4-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dibromo-3-chloropropane	ND	0.688						0		30	
Hexachloro-1,3-butadiene	ND	0.0688						0		30	
1,2,3-Trichlorobenzene	ND	0.0275						0		30	
Surr: Dibromofluoromethane	1.70		1.720		99.1	80	116		0		
Surr: Toluene-d8	1.73		1.720		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.68		1.720		97.7	82.8	113		0		

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-004BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/12/2020			RunNo: 59171			
Client ID: 358-B4-15		Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182297		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 2005085-005BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B4-20	Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182299		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dichlorodifluoromethane (CFC-12)	1.21	0.0235	1.177	0	103	-0.64	180				
Chloromethane	1.25	0.0588	1.177	0	107	33.2	162				
Vinyl chloride	1.28	0.0294	1.177	0	109	47.2	146				
Bromomethane	1.99	0.0588	1.177	0	169	18.7	226				
Trichlorofluoromethane (CFC-11)	1.35	0.0235	1.177	0	114	48.9	158				
Chloroethane	1.44	0.0588	1.177	0	123	20.8	195				
1,1-Dichloroethene	1.33	0.0235	1.177	0	113	67.1	135				
Methylene chloride	1.26	0.0235	1.177	0	107	64.9	137				
trans-1,2-Dichloroethene	1.32	0.0235	1.177	0	113	75.1	126				
1,1-Dichloroethane	1.29	0.0235	1.177	0	110	68.4	132				
cis-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	76.2	125				
Chloroform	1.29	0.0235	1.177	0	110	74.5	127				
1,1,1-Trichloroethane (TCA)	1.33	0.0294	1.177	0	113	74.5	126				
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128				
Carbon tetrachloride	1.33	0.0588	1.177	0	113	72.5	126				
1,2-Dichloroethane (EDC)	1.30	0.0235	1.177	0	110	70.4	128				
Trichloroethene (TCE)	1.29	0.0235	1.177	0	109	64.7	145				
1,2-Dichloropropane	1.26	0.0235	1.177	0	107	69.3	129				
Bromodichloromethane	1.26	0.0235	1.177	0	107	75.9	120				
Dibromomethane	1.25	0.0235	1.177	0	106	78.5	123				
cis-1,3-Dichloropropene	1.23	0.0235	1.177	0	104	67.3	122				
trans-1,3-Dichloropropylene	1.18	0.0235	1.177	0	100	64.4	124				
1,1,2-Trichloroethane	1.24	0.0235	1.177	0	106	72.4	129				
1,3-Dichloropropane	1.26	0.0294	1.177	0	107	70.5	128				

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 5/12/2020		RunNo: 59171			
Client ID: 358-B4-20		Batch ID: 28305				Analysis Date: 5/12/2020		SeqNo: 1182299			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	1.28	0.0294	1.177	0	109	64.9	140				
Dibromochloromethane	1.20	0.0294	1.177	0	102	71.8	125				
1,2-Dibromoethane (EDB)	1.25	0.00588	1.177	0	106	73.8	126				
Chlorobenzene	1.26	0.0294	1.177	0	107	85.1	118				
1,1,1,2-Tetrachloroethane	1.26	0.0294	1.177	0	107	82.2	118				
Bromoform	1.18	0.0588	1.177	0	100	66.1	130				
1,1,2,2-Tetrachloroethane	1.25	0.0235	1.177	0	106	41.2	150				
Bromobenzene	1.23	0.0235	1.177	0	105	84.6	121				
2-Chlorotoluene	1.24	0.0294	1.177	0	105	78.4	128				
4-Chlorotoluene	1.24	0.0294	1.177	0	106	81.2	123				
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132				
1,2,4-Trichlorobenzene	1.26	0.0294	1.177	0	107	68.9	139				
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120				
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119				
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120				
1,2-Dibromo-3-chloropropane	1.21	0.588	1.177	0	103	56.6	144				
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148				
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150				
Surr: Dibromofluoromethane	1.58		1.471		107	80	116				
Surr: Toluene-d8	1.49		1.471		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113				

Sample ID: 2005085-005BMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B4-20		Batch ID: 28305				Analysis Date: 5/12/2020			SeqNo: 1182300		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.20	0.0235	1.177	0	102	-0.64	180	1.211	0.979	30	
Chloromethane	1.29	0.0588	1.177	0	109	33.2	162	1.254	2.57	30	
Vinyl chloride	1.27	0.0294	1.177	0	108	47.2	146	1.278	0.929	30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B4-20	Batch ID: 28305	Analysis Date: 5/12/2020							SeqNo: 1182300		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	1.83	0.0588	1.177	0	155	18.7	226	1.994	8.76	30	
Trichlorofluoromethane (CFC-11)	1.34	0.0235	1.177	0	114	48.9	158	1.346	0.454	30	
Chloroethane	1.41	0.0588	1.177	0	120	20.8	195	1.442	2.39	30	
1,1-Dichloroethene	1.28	0.0235	1.177	0	109	67.1	135	1.326	3.46	30	
Methylene chloride	1.21	0.0235	1.177	0	103	64.9	137	1.256	3.38	30	
trans-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	75.1	126	1.325	3.29	30	
1,1-Dichloroethane	1.25	0.0235	1.177	0	106	68.4	132	1.290	2.94	30	
cis-1,2-Dichloroethene	1.25	0.0235	1.177	0	106	76.2	125	1.278	2.27	30	
Chloroform	1.26	0.0235	1.177	0	107	74.5	127	1.291	2.15	30	
1,1,1-Trichloroethane (TCA)	1.30	0.0294	1.177	0	110	74.5	126	1.334	2.60	30	
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128	1.327	0.250	30	
Carbon tetrachloride	1.31	0.0588	1.177	0	111	72.5	126	1.329	1.25	30	
1,2-Dichloroethane (EDC)	1.25	0.0235	1.177	0	106	70.4	128	1.297	3.83	30	
Trichloroethene (TCE)	1.26	0.0235	1.177	0	107	64.7	145	1.287	2.16	30	
1,2-Dichloropropane	1.23	0.0235	1.177	0	105	69.3	129	1.262	2.41	30	
Bromodichloromethane	1.22	0.0235	1.177	0	104	75.9	120	1.263	3.15	30	
Dibromomethane	1.21	0.0235	1.177	0	103	78.5	123	1.252	3.05	30	
cis-1,3-Dichloropropene	1.19	0.0235	1.177	0	101	67.3	122	1.226	3.16	30	
trans-1,3-Dichloropropylene	1.16	0.0235	1.177	0	98.9	64.4	124	1.182	1.54	30	
1,1,2-Trichloroethane	1.22	0.0235	1.177	0	103	72.4	129	1.242	2.07	30	
1,3-Dichloropropane	1.22	0.0294	1.177	0	103	70.5	128	1.257	3.41	30	
Tetrachloroethene (PCE)	1.26	0.0294	1.177	0	107	64.9	140	1.280	1.69	30	
Dibromochloromethane	1.18	0.0294	1.177	0	100	71.8	125	1.197	1.28	30	
1,2-Dibromoethane (EDB)	1.20	0.00588	1.177	0	102	73.8	126	1.253	4.34	30	
Chlorobenzene	1.25	0.0294	1.177	0	107	85.1	118	1.262	0.589	30	
1,1,1,2-Tetrachloroethane	1.23	0.0294	1.177	0	105	82.2	118	1.263	2.40	30	
Bromoform	1.14	0.0588	1.177	0	96.9	66.1	130	1.178	3.23	30	
1,1,2,2-Tetrachloroethane	1.26	0.0235	1.177	0	107	41.2	150	1.253	0.312	30	
Bromobenzene	1.23	0.0235	1.177	0	104	84.6	121	1.231	0.137	30	

Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/12/2020	RunNo: 59171				
Client ID: 358-B4-20	Batch ID: 28305					Analysis Date: 5/12/2020	SeqNo: 1182300				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	1.23	0.0294	1.177	0	104	78.4	128	1.241	0.969	30	
4-Chlorotoluene	1.24	0.0294	1.177	0	105	81.2	123	1.243	0.382	30	
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132	1.419	0.0349	30	
1,2,4-Trichlorobenzene	1.27	0.0294	1.177	0	108	68.9	139	1.261	0.295	30	
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120	1.270	0.290	30	
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119	1.258	0.561	30	
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120	1.270	0.128	30	
1,2-Dibromo-3-chloropropane	1.25	0.588	1.177	0	106	56.6	144	1.208	3.58	30	
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148	1.377	0.298	30	
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150	1.293	0.0884	30	
Surr: Dibromofluoromethane	1.56		1.471		106	80	116		0		
Surr: Toluene-d8	1.46		1.471		99.3	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113		0		

Sample ID: 2005098-001BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/12/2020	RunNo: 59171				
Client ID: BATCH	Batch ID: 28305					Analysis Date: 5/12/2020	SeqNo: 1182308				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0185						0		30	
Chloromethane	ND	0.0463						0		30	
Vinyl chloride	ND	0.0231						0		30	
Bromomethane	ND	0.0463						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0185						0		30	
Chloroethane	ND	0.0463						0		30	
1,1-Dichloroethene	ND	0.0185						0		30	
Methylene chloride	ND	0.0185						0		30	
trans-1,2-Dichloroethene	ND	0.0185						0		30	
1,1-Dichloroethane	ND	0.0185						0		30	
cis-1,2-Dichloroethene	0.0529	0.0185						0.05089	3.80	30	



Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005098-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH		Batch ID: 28305		Analysis Date: 5/12/2020						SeqNo: 1182308	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0185						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0231						0		30	
1,1-Dichloropropene	ND	0.0185						0		30	
Carbon tetrachloride	ND	0.0463						0		30	
1,2-Dichloroethane (EDC)	ND	0.0185						0		30	
Trichloroethene (TCE)	ND	0.0185						0		30	
1,2-Dichloropropane	ND	0.0185						0		30	
Bromodichloromethane	ND	0.0185						0		30	
Dibromomethane	ND	0.0185						0		30	
cis-1,3-Dichloropropene	ND	0.0185						0		30	
trans-1,3-Dichloropropylene	ND	0.0185						0		30	
1,1,2-Trichloroethane	ND	0.0185						0		30	
1,3-Dichloropropane	ND	0.0231						0		30	
Tetrachloroethene (PCE)	0.0437	0.0231						0.04384	0.310	30	
Dibromochloromethane	ND	0.0231						0		30	
1,2-Dibromoethane (EDB)	ND	0.00463						0		30	
Chlorobenzene	ND	0.0231						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0231						0		30	
Bromoform	ND	0.0463						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0185						0		30	
Bromobenzene	ND	0.0185						0		30	
2-Chlorotoluene	ND	0.0231						0		30	
4-Chlorotoluene	ND	0.0231						0		30	
1,2,3-Trichloropropane	ND	0.0231						0		30	
1,2,4-Trichlorobenzene	ND	0.0231						0		30	
1,3-Dichlorobenzene	ND	0.0185						0		30	
1,4-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dibromo-3-chloropropane	ND	0.463						0		30	



Work Order: 2005085
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005098-001BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH	Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182308		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	ND	0.0463						0		30	
1,2,3-Trichlorobenzene	ND	0.0185						0		30	
Surr: Dibromofluoromethane	1.11		1.157		95.7	80	116		0		
Surr: Toluene-d8	1.14		1.157		98.4	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.12		1.157		96.5	82.8	113		0		

Client Name: **ONEILL**

Work Order Number: **2005085**

Logged by: **Carissa True**

Date Received: **5/8/2020 4:27:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>2^{\circ}\text{C}$ to 6°C * Yes ☒ No ☐ NA ☐
8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

19. Additional remarks:

Temp Blank out of temp

Item Information

Item #	Temp $^{\circ}\text{C}$
Cooler 1	0.9
Sample 1	1.0
Temp Blank 1	11.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/18/20 Page: 1 of 3

Project Name: 2021

Project No: F200

Collected by: ATW

Location: Fussy

Report To (PM): ATW

PM Email:

Laboratory Project No (Internal): 2005085

Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: 057
Address:
City, State, Zip:
Telephone:
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DH)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	Metals** (EPA 8082 / 608)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 358-P4-4-5	5/18/20	10:00	GN	X												
2 358-P4-4-5		8:20	S													
3 358-P4-4-5		8:30														
4 358-P4-4-5		8:35														
5 358-P4-4-5		8:40														
6 358-P4-4-5		8:45														
7 358-P4-4-5		8:50														
8 358-P4-4-5		8:55														
9 358-P4-4-5		9:00														
10 358-P4-4-5		9:05														

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sn Ti Tl U V Zn
***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time: 5/18/20 Received Date/Time: 5/18/20
Relinquished Date/Time: 5/18/20 Received Date/Time: 5/18/20

Turn-around Time:
☒ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
Same Day (specify)



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/12 Page: 2 of 3

Project Name: P200

Project No: P20021

Collected by: Arlens

Location: P200

Report To (PM): Arlens

PM Email:

Laboratory Project No (Internal): 2005085
Special Remarks:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	SVOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HX)	Diesel/Heavy Oil Range Organics (HCID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 358-135-125 10		1030	S	X													
2 -12.5		1035															
3 -15		1100															
4 -20		1110		X													
5 -25		1120															
6 358-135-125		1035															
7 358-136-855		1305		X													
8 -7.5		1310															
9 -10		1320		X													
10 -12.5		1325															

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

**Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
5/8/12	5/8/12 @ 1627		

Turn-around Time: ☒ Standard ☐ 3 Day ☐ 2 Day ☐ Next Day ☐ Same Day (specify)



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/20 Page: 3 of 3

Project Name: P200

Project No: P20021

Collected by: ATKINS

Location: FL358

Report To (PM): ATKINS

PM Email:

Laboratory Project No (Internal):
Special Remarks:

10057085

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: 039	Address:		City, State, Zip:		Telephone:		Fax:			
Sample Name		Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624) GX/BTEX BTEX Gasoline Range Organics (GX) Hydrocarbon Identification (HCID) Diesel/Heavy Oil Range Organics (DHO) SVOCs (EPA 8270 / 625) PAHs (EPA 8270 - SIM) PCBs (EPA 8082 / 608) Metals** (EPA 6020 / 200.8) Total (T) Dissolved (D) Anions (IC)*** ED8 (8011)				Comments	
1 358-136-2015	5/8/20	1335	3							
2 -20		1340		X						
3 -25		1345								
4 358-135-90		1430	90	A						
5										
6										
7										
8										
9										
10										
*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water										
**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn										
***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite										
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.										
Relinquished	Date/Time	Received	Date/Time							
Relinquished	Date/Time	Received	Date/Time							
Turn-around Time:				☒ Standard ☐ 3 Day ☐ 2 Day ☐ Next Day ☐ Same Day (specify)						



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Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/8/02 Page: 2 of 3

Project Name: F200

Project No: A20201

Collected by: ARCS

Location: P200

Report To (PM): ARCS

PM Email:

Laboratory Project No (Internal): 2005085

Special Remarks: Add per V.A. 7/19/02 Next Day

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: CSJ
Address:
City, State, Zip:
Telephone:
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	SVOCs (EPA 8260 / 624)	GV/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDR (8011)	Comments
-------------	-------------	-------------	-----------------------	------------------------	---------	------	------------------------------	----------------------------------	------------------------	-----------------------	-----------------------	-----------------------------	-------------------------	----------------	------------	----------

1	358-135-12510	10:00	S	X												
2	-12.5	10:05														
3	-15	11:00														
4	-20	11:10														
5	-25	11:20														
6	358-135-12510	12:35														
7	358-135-12510	13:05														
8	-7.5	13:10														
9	-10	13:20														
10	-12.5	13:25														

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TRL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sn Se Si Sn Ti U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: Date/Time 5/8/02 Received: Date/Time 5/8/02 @ 1627

Relinquished: Date/Time 5/8/02 Received: Date/Time 5/8/02 @ 1627

Relinquished: Date/Time 5/8/02 Received: Date/Time 5/8/02 @ 1627

Turn-around Time:

☒ Standard

☐ 3 Day

☐ 2 Day

☐ Next Day

☐ Same Day

(Specify)



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group

Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200

Work Order Number: 2005086

May 15, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 4 sample(s) on 5/8/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

DoD/ELAP Certification #L17-135, ISO/IEC 17025:2005
ORELAP Certification: WA 100009-007 (NELAP Recognized)

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005086

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005086-001	358-B3-GW	05/08/2020 8:15 AM	05/08/2020 4:27 PM
2005086-002	358-B4-GW	05/08/2020 12:35 PM	05/08/2020 4:27 PM
2005086-003	358-B5-GW	05/08/2020 2:30 PM	05/08/2020 4:27 PM
2005086-004	Trip Blank	05/01/2020 11:24 AM	05/08/2020 4:27 PM

CLIENT: O'Neill Service Group
Project: F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 8:15:00 AM

Project: F200

Lab ID: 2005086-001

Matrix: Groundwater

Client Sample ID: 358-B3-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 2:39:25 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
cis-1,2-Dichloroethene	6.41	1.00		µg/L	1	5/12/2020 2:39:25 PM
Chloroform	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Trichloroethene (TCE)	2.08	0.500		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Tetrachloroethene (PCE)	5.71	1.00		µg/L	1	5/12/2020 2:39:25 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 2:39:25 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 2:39:25 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM

Original



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 8:15:00 AM

Project: F200

Lab ID: 2005086-001

Matrix: Groundwater

Client Sample ID: 358-B3-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 2:39:25 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 2:39:25 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 2:39:25 PM
Surr: Dibromofluoromethane	95.7	81.1 - 118		%Rec	1	5/12/2020 2:39:25 PM
Surr: Toluene-d8	99.0	85.7 - 113		%Rec	1	5/12/2020 2:39:25 PM
Surr: 1-Bromo-4-fluorobenzene	99.2	84.2 - 111		%Rec	1	5/12/2020 2:39:25 PM



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 12:35:00 PM

Project: F200

Lab ID: 2005086-002

Matrix: Groundwater

Client Sample ID: 358-B4-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 3:09:27 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Chloroform	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 3:09:27 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 3:09:27 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM

Original



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 12:35:00 PM

Project: F200

Lab ID: 2005086-002

Matrix: Groundwater

Client Sample ID: 358-B4-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 3:09:27 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 3:09:27 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 3:09:27 PM
Surr: Dibromofluoromethane	96.3	81.1 - 118		%Rec	1	5/12/2020 3:09:27 PM
Surr: Toluene-d8	99.1	85.7 - 113		%Rec	1	5/12/2020 3:09:27 PM
Surr: 1-Bromo-4-fluorobenzene	100	84.2 - 111		%Rec	1	5/12/2020 3:09:27 PM



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 2:30:00 PM

Project: F200

Lab ID: 2005086-003

Matrix: Groundwater

Client Sample ID: 358-B5-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
Vinyl chloride	2.20	0.200		µg/L	1	5/12/2020 3:39:40 PM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
cis-1,2-Dichloroethene	68.3	10.0	D	µg/L	10	5/13/2020 10:39:00 AM
Chloroform	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Trichloroethene (TCE)	69.9	5.00	D	µg/L	10	5/13/2020 10:39:00 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Tetrachloroethene (PCE)	136	10.0	D	µg/L	10	5/13/2020 10:39:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 3:39:40 PM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromoform	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 3:39:40 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM

Original



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/8/2020 2:30:00 PM

Project: F200

Lab ID: 2005086-003

Matrix: Groundwater

Client Sample ID: 358-B5-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 3:39:40 PM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 3:39:40 PM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 3:39:40 PM
Surr: Dibromofluoromethane	96.1	81.1 - 118		%Rec	1	5/12/2020 3:39:40 PM
Surr: Toluene-d8	99.9	85.7 - 113		%Rec	1	5/12/2020 3:39:40 PM
Surr: 1-Bromo-4-fluorobenzene	99.4	84.2 - 111		%Rec	1	5/12/2020 3:39:40 PM



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/1/2020 11:24:00 AM

Project: F200

Lab ID: 2005086-004

Matrix: Water

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloromethane	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
Vinyl chloride	ND	0.200		µg/L	1	5/12/2020 11:38:17 AM
Bromomethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Methylene chloride	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Chloroform	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Dibromomethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/12/2020 11:38:17 AM
Chlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromoform	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Bromobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/12/2020 11:38:17 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM

Original



Analytical Report

Work Order: 2005086

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/1/2020 11:24:00 AM

Project: F200

Lab ID: 2005086-004

Matrix: Water

Client Sample ID: Trip Blank

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28304

Analyst: CR

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/12/2020 11:38:17 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/12/2020 11:38:17 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/12/2020 11:38:17 AM
Surr: Dibromofluoromethane	97.6	81.1 - 118		%Rec	1	5/12/2020 11:38:17 AM
Surr: Toluene-d8	99.9	85.7 - 113		%Rec	1	5/12/2020 11:38:17 AM
Surr: 1-Bromo-4-fluorobenzene	99.7	84.2 - 111		%Rec	1	5/12/2020 11:38:17 AM

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28304	SampType: LCS	Units: µg/L			Prep Date: 5/12/2020			RunNo: 59146			
Client ID: LCSW	Batch ID: 28304	Analysis Date: 5/12/2020						SeqNo: 1181677			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	16.6	1.00	20.00	0	82.9	14.5	175				
Chloromethane	17.0	2.00	20.00	0	85.2	44.8	153				
Vinyl chloride	19.1	0.200	20.00	0	95.3	64.1	131				
Bromomethane	19.5	1.00	20.00	0	97.7	34.2	171				
Trichlorofluoromethane (CFC-11)	19.6	1.00	20.00	0	98.2	77.4	121				
Chloroethane	19.4	1.00	20.00	0	97.1	73.3	123				
1,1-Dichloroethene	20.2	1.00	20.00	0	101	81.8	116				
Methylene chloride	20.5	1.00	20.00	0	102	80.4	116				
trans-1,2-Dichloroethene	20.1	1.00	20.00	0	101	83.1	115				
1,1-Dichloroethane	19.8	1.00	20.00	0	98.8	79.5	119				
cis-1,2-Dichloroethene	20.0	1.00	20.00	0	100	83.5	115				
Chloroform	19.9	1.00	20.00	0	99.4	81	117				
1,1,1-Trichloroethane (TCA)	19.6	1.00	20.00	0	98.0	82.8	116				
1,1-Dichloropropene	20.0	1.00	20.00	0	100	81.5	117				
Carbon tetrachloride	19.9	1.00	20.00	0	99.3	83.3	114				
1,2-Dichloroethane (EDC)	19.7	1.00	20.00	0	98.4	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	20.4	1.00	20.00	0	102	78	120				
Bromodichloromethane	19.6	1.00	20.00	0	98.1	80.9	116				
Dibromomethane	20.7	1.00	20.00	0	103	80	117				
cis-1,3-Dichloropropene	20.8	1.00	20.00	0	104	79.8	118				
trans-1,3-Dichloropropylene	20.7	1.00	20.00	0	103	75.8	122				
1,1,2-Trichloroethane	21.2	1.00	20.00	0	106	77.8	120				
1,3-Dichloropropane	21.4	1.00	20.00	0	107	76.5	121				
Tetrachloroethene (PCE)	20.8	1.00	20.00	0	104	86.2	114				
Dibromochloromethane	21.7	1.00	20.00	0	109	78	117				
1,2-Dibromoethane (EDB)	21.2	0.250	20.00	0	106	76.8	120				
Chlorobenzene	20.1	1.00	20.00	0	101	85.2	112				
1,1,1,2-Tetrachloroethane	20.0	1.00	20.00	0	99.9	85.5	110				
Bromoform	21.8	2.00	20.00	0	109	73.4	119				
1,1,2,2-Tetrachloroethane	20.8	1.00	20.00	0	104	74.8	124				

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28304	SampType: LCS	Units: µg/L				Prep Date: 5/12/2020			RunNo: 59146		
Client ID: LCSW	Batch ID: 28304	Analysis Date: 5/12/2020						SeqNo: 1181677			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	20.5	1.00	20.00	0	102	83.2	116				
2-Chlorotoluene	20.3	1.00	20.00	0	101	81.8	119				
4-Chlorotoluene	20.2	1.00	20.00	0	101	81.6	118				
1,2,3-Trichloropropane	20.7	1.00	20.00	0	103	73.2	126				
1,2,4-Trichlorobenzene	19.1	2.00	20.00	0	95.7	68.7	138				
1,3-Dichlorobenzene	20.5	1.00	20.00	0	102	90.7	114				
1,4-Dichlorobenzene	20.7	1.00	20.00	0	104	90.1	114				
1,2-Dichlorobenzene	20.7	1.00	20.00	0	103	90.1	115				
1,2-Dibromo-3-chloropropane	20.8	1.00	20.00	0	104	54.8	147				
Hexachloro-1,3-butadiene	19.5	4.00	20.00	0	97.3	73.6	134				
1,2,3-Trichlorobenzene	19.0	4.00	20.00	0	94.8	57.1	150				
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118				
Surr: Toluene-d8	24.9		25.00		99.5	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.9		25.00		103	84.2	111				

Sample ID: LCS-28304	SampType: LCS	Units: µg/L				Prep Date: 5/12/2020			RunNo: 59146		
Client ID: LCSW02	Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181678		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	15.5	1.00	20.00	0	77.5	14.5	175	16.58	6.76	20	
Chloromethane	17.6	2.00	20.00	0	88.0	44.8	153	17.03	3.24	20	
Vinyl chloride	19.0	0.200	20.00	0	95.2	64.1	131	19.06	0.0665	20	
Bromomethane	18.5	1.00	20.00	0	92.4	34.2	171	19.53	5.52	20	
Trichlorofluoromethane (CFC-11)	19.7	1.00	20.00	0	98.5	77.4	121	19.64	0.253	20	
Chloroethane	19.4	1.00	20.00	0	97.1	73.3	123	19.42	0.0689	20	
1,1-Dichloroethene	20.4	1.00	20.00	0	102	81.8	116	20.16	1.04	20	
Methylene chloride	20.4	1.00	20.00	0	102	80.4	116	20.46	0.544	20	
trans-1,2-Dichloroethene	20.5	1.00	20.00	0	103	83.1	115	20.15	1.91	20	
1,1-Dichloroethane	19.8	1.00	20.00	0	98.8	79.5	119	19.76	0.0431	20	
cis-1,2-Dichloroethene	19.9	1.00	20.00	0	99.7	83.5	115	20.00	0.263	20	

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCSD-28304	SampType: LCSD	Units: µg/L				Prep Date: 5/12/2020			RunNo: 59146		
Client ID: LCSW02	Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181678		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	19.8	1.00	20.00	0	99.2	81	117	19.87	0.180	20	
1,1,1-Trichloroethane (TCA)	19.6	1.00	20.00	0	98.2	82.8	116	19.59	0.184	20	
1,1-Dichloropropene	20.1	1.00	20.00	0	100	81.5	117	20.03	0.322	20	
Carbon tetrachloride	20.0	1.00	20.00	0	100	83.3	114	19.85	0.707	20	
1,2-Dichloroethane (EDC)	19.4	1.00	20.00	0	97.1	78.4	118	19.68	1.37	20	
Trichloroethene (TCE)	20.4	0.500	20.00	0	102	82.2	116	20.27	0.556	20	
1,2-Dichloropropane	20.4	1.00	20.00	0	102	78	120	20.44	0.384	20	
Bromodichloromethane	19.7	1.00	20.00	0	98.3	80.9	116	19.61	0.223	20	
Dibromomethane	20.3	1.00	20.00	0	102	80	117	20.68	1.60	20	
cis-1,3-Dichloropropene	20.6	1.00	20.00	0	103	79.8	118	20.76	0.593	20	
trans-1,3-Dichloropropylene	20.7	1.00	20.00	0	103	75.8	122	20.68	0.0615	20	
1,1,2-Trichloroethane	21.1	1.00	20.00	0	106	77.8	120	21.20	0.309	20	
1,3-Dichloropropane	20.7	1.00	20.00	0	104	76.5	121	21.36	3.09	20	
Tetrachloroethene (PCE)	20.9	1.00	20.00	0	104	86.2	114	20.83	0.130	20	
Dibromochloromethane	20.9	1.00	20.00	0	105	78	117	21.74	3.80	20	
1,2-Dibromoethane (EDB)	20.8	0.250	20.00	0	104	76.8	120	21.22	2.08	20	
Chlorobenzene	20.1	1.00	20.00	0	101	85.2	112	20.14	0.160	20	
1,1,1,2-Tetrachloroethane	20.1	1.00	20.00	0	101	85.5	110	19.98	0.633	20	
Bromoform	21.9	2.00	20.00	0	110	73.4	119	21.81	0.533	20	
1,1,2,2-Tetrachloroethane	21.7	1.00	20.00	0	108	74.8	124	20.78	4.16	20	
Bromobenzene	20.9	1.00	20.00	0	105	83.2	116	20.49	2.02	20	
2-Chlorotoluene	21.1	1.00	20.00	0	106	81.8	119	20.26	4.13	20	
4-Chlorotoluene	20.0	1.00	20.00	0	99.9	81.6	118	20.21	1.11	20	
1,2,3-Trichloropropane	21.9	1.00	20.00	0	110	73.2	126	20.67	5.80	20	
1,2,4-Trichlorobenzene	20.6	2.00	20.00	0	103	68.7	138	19.15	7.25	20	
1,3-Dichlorobenzene	20.7	1.00	20.00	0	103	90.7	114	20.50	0.752	20	
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	114	20.75	0.00988	20	
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	90.1	115	20.69	0.462	20	
1,2-Dibromo-3-chloropropane	21.1	1.00	20.00	0	106	54.8	147	20.84	1.26	20	
Hexachloro-1,3-butadiene	21.0	4.00	20.00	0	105	73.6	134	19.47	7.64	20	
1,2,3-Trichlorobenzene	20.4	4.00	20.00	0	102	57.1	150	18.95	7.13	20	

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCSD-28304		SampType: LCSD			Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: LCSW02		Batch ID: 28304			Analysis Date: 5/12/2020			SeqNo: 1181678				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	24.8		25.00		99.2	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	27.0		25.00		108	84.2	111		0		

Sample ID: MB-28304		SampType: MBLK			Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: MBLKW		Batch ID: 28304			Analysis Date: 5/12/2020			SeqNo: 1181679				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	1.00
Chloromethane	ND	2.00
Vinyl chloride	ND	0.200
Bromomethane	ND	1.00
Trichlorofluoromethane (CFC-11)	ND	1.00
Chloroethane	ND	1.00
1,1-Dichloroethene	ND	1.00
Methylene chloride	ND	1.00
trans-1,2-Dichloroethene	ND	1.00
1,1-Dichloroethane	ND	1.00
cis-1,2-Dichloroethene	ND	1.00
Chloroform	ND	1.00
1,1,1-Trichloroethane (TCA)	ND	1.00
1,1-Dichloropropene	ND	1.00
Carbon tetrachloride	ND	1.00
1,2-Dichloroethane (EDC)	ND	1.00
Trichloroethene (TCE)	ND	0.500
1,2-Dichloropropane	ND	1.00
Bromodichloromethane	ND	1.00
Dibromomethane	ND	1.00
cis-1,3-Dichloropropene	ND	1.00
trans-1,3-Dichloropropylene	ND	1.00

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28304	SampType: MBLK	Units: µg/L			Prep Date: 5/12/2020			RunNo: 59146			
Client ID: MBLKW	Batch ID: 28304	Analysis Date: 5/12/2020						SeqNo: 1181679			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
Hexachloro-1,3-butadiene	ND	4.00									
1,2,3-Trichlorobenzene	ND	4.00									
Surr: Dibromofluoromethane	24.0		25.00		95.9	81.1	118				
Surr: Toluene-d8	24.6		25.00		98.4	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		99.8	84.2	111				

Sample ID: 2005046-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: BATCH		Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181636	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005046-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: BATCH		Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181636	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005046-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020		RunNo: 59146			
Client ID: BATCH		Batch ID: 28304				Analysis Date: 5/12/2020		SeqNo: 1181636			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.3		25.00		97.2	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		98.8	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.9	84.2	111		0		

Sample ID: 2005047-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020		RunNo: 59146			
Client ID: BATCH		Batch ID: 28304				Analysis Date: 5/12/2020		SeqNo: 1181638			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	



Date: 5/15/2020

Work Order: 2005086
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005047-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: BATCH		Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181638	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.0		25.00		96.0	81.1	118		0		
Surr: Toluene-d8	24.8		25.00		99.0	85.7	113		0		

Work Order: 2005086

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005047-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/12/2020			RunNo: 59146		
Client ID: BATCH		Batch ID: 28304					Analysis Date: 5/12/2020			SeqNo: 1181638	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		99.0	84.2	111		0		

Client Name: **ONEILL**
 Logged by: **Carissa True**

Work Order Number: **2005086**
 Date Received: **5/8/2020 4:27:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

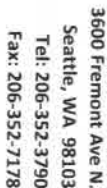
19. Additional remarks:

Temp Blank out of temp

Item Information

Item #	Temp °C
Cooler 1	0.9
Sample 1	1.0
Temp Blank 1	11.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Date: 5/8/20 Page: 1 of 1
Project Name: 207 (200)

20050610

Project No: 428

620

Collected by: ATKINS

location: F-558-93

Report To (PM): Atv

PM Email:

[illegible]

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

***Metals (Circle): MTCA-5, RCRA-8, Priority Pollutants, TAL, Individual: Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sr, Sn, Ti, Tl, U, V, Zn

***Anions (Circle): Nitrate, Nitrite, Chloride, Sulfate, Bromide, O-Phosphate, Fluoride, Nitrate+Nitrite

Turn-around Time:

Date/Time

Date/Time

☐ 3 Day
☐ 2 Day

2 Day

Date/Time

Date/Time

☐ Next Day

1



Fremont
Analytical

3600 Fremont Ave. N.

Seattle, WA 98103

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O'Neill Service Group

Vance Atkins

17619 NE 67th Court, Suite 100

Redmond, WA 98052

RE: F200

Work Order Number: 2005098

May 15, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 22 sample(s) on 5/11/2020 for the analyses presented in the following report.

Sample Moisture (Percent Moisture)

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005098

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005098-001	358-B7-5	05/11/2020 8:25 AM	05/11/2020 4:45 PM
2005098-002	358-B7-7.5	05/11/2020 8:30 AM	05/11/2020 4:45 PM
2005098-003	358-B7-10	05/11/2020 8:45 AM	05/11/2020 4:45 PM
2005098-004	358-B7-15	05/11/2020 8:55 AM	05/11/2020 4:45 PM
2005098-005	358-B7-20	05/11/2020 9:05 AM	05/11/2020 4:45 PM
2005098-006	358-B7-25	05/11/2020 9:10 AM	05/11/2020 4:45 PM
2005098-007	358-B8-2.5	05/11/2020 10:30 AM	05/11/2020 4:45 PM
2005098-008	358-B8-5	05/11/2020 10:35 AM	05/11/2020 4:45 PM
2005098-009	358-B8-7.5	05/11/2020 10:40 AM	05/11/2020 4:45 PM
2005098-010	358-B8-10	05/11/2020 10:45 AM	05/11/2020 4:45 PM
2005098-011	358-B8-12.5	05/11/2020 10:50 AM	05/11/2020 4:45 PM
2005098-012	358-B8-15	05/11/2020 11:00 AM	05/11/2020 4:45 PM
2005098-013	358-B8-20	05/11/2020 11:05 AM	05/11/2020 4:45 PM
2005098-014	358-B8-25	05/11/2020 11:15 AM	05/11/2020 4:45 PM
2005098-015	358-B9-2.5	05/11/2020 1:15 PM	05/11/2020 4:45 PM
2005098-016	358-B9-7.5	05/11/2020 1:30 PM	05/11/2020 4:45 PM
2005098-017	358-B9-10	05/11/2020 1:35 PM	05/11/2020 4:45 PM
2005098-018	358-B9-12.5	05/11/2020 1:40 PM	05/11/2020 4:45 PM
2005098-019	358-B9-15	05/11/2020 1:45 PM	05/11/2020 4:45 PM
2005098-020	358-B9-20	05/11/2020 1:50 PM	05/11/2020 4:45 PM
2005098-021	358-B9-25	05/11/2020 2:00 PM	05/11/2020 4:45 PM
2005098-022	Trip Blank	05/06/2020 12:40 PM	05/11/2020 4:45 PM

CLIENT: O'Neill Service Group
Project: F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 8:25:00 AM

Project: F200

Lab ID: 2005098-001

Matrix: Soil

Client Sample ID: 358-B7-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloromethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Vinyl chloride	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromomethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Trichlorofluoromethane (CFC-11)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloroethane	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloroethene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Methylene chloride	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
trans-1,2-Dichloroethene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
cis-1,2-Dichloroethene	0.0509	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chloroform	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,1-Trichloroethane (TCA)	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1-Dichloropropene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Carbon tetrachloride	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichloroethane (EDC)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Trichloroethene (TCE)	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichloropropane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromodichloromethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Dibromomethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
cis-1,3-Dichloropropene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
trans-1,3-Dichloropropylene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,2-Trichloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,3-Dichloropropane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Tetrachloroethene (PCE)	0.0438	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Dibromochloromethane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dibromoethane (EDB)	ND	0.00463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Chlorobenzene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,1,2-Tetrachloroethane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromoform	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,1,2,2-Tetrachloroethane	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Bromobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
2-Chlorotoluene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
4-Chlorotoluene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,3-Trichloropropane	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,4-Trichlorobenzene	ND	0.0231		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,3-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,4-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM

Original



Client: O'Neill Service Group

Collection Date: 5/11/2020 8:25:00 AM

Project: F200

Lab ID: 2005098-001

Matrix: Soil

Client Sample ID: 358-B7-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Hexachloro-1,3-butadiene	ND	0.0463		mg/Kg-dry	1	5/12/2020 6:34:15 PM
1,2,3-Trichlorobenzene	ND	0.0185		mg/Kg-dry	1	5/12/2020 6:34:15 PM
Surr: Dibromofluoromethane	96.5	80 - 116		%Rec	1	5/12/2020 6:34:15 PM
Surr: Toluene-d8	99.1	84.8 - 113		%Rec	1	5/12/2020 6:34:15 PM
Surr: 1-Bromo-4-fluorobenzene	96.6	82.8 - 113		%Rec	1	5/12/2020 6:34:15 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	13.1	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 8:45:00 AM

Project: F200

Lab ID: 2005098-003

Matrix: Soil

Client Sample ID: 358-B7-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloromethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Vinyl chloride	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromomethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Trichlorofluoromethane (CFC-11)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloroethane	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Methylene chloride	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
trans-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
cis-1,2-Dichloroethene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chloroform	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,1-Trichloroethane (TCA)	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1-Dichloropropene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Carbon tetrachloride	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichloroethane (EDC)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Trichloroethene (TCE)	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichloropropane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromodichloromethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Dibromomethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
cis-1,3-Dichloropropene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
trans-1,3-Dichloropropylene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,2-Trichloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,3-Dichloropropane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Tetrachloroethene (PCE)	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Dibromochloromethane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dibromoethane (EDB)	ND	0.00435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Chlorobenzene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,1,2-Tetrachloroethane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromoform	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,1,1,2,2-Tetrachloroethane	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Bromobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
2-Chlorotoluene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
4-Chlorotoluene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,3-Trichloropropane	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,4-Trichlorobenzene	ND	0.0218		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,3-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,4-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2-Dichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 8:45:00 AM

Project: F200

Lab ID: 2005098-003

Matrix: Soil

Client Sample ID: 358-B7-10

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Hexachloro-1,3-butadiene	ND	0.0435		mg/Kg-dry	1	5/12/2020 7:34:31 PM
1,2,3-Trichlorobenzene	ND	0.0174		mg/Kg-dry	1	5/12/2020 7:34:31 PM
Surr: Dibromofluoromethane	97.5	80 - 116		%Rec	1	5/12/2020 7:34:31 PM
Surr: Toluene-d8	98.9	84.8 - 113		%Rec	1	5/12/2020 7:34:31 PM
Surr: 1-Bromo-4-fluorobenzene	96.5	82.8 - 113		%Rec	1	5/12/2020 7:34:31 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	12.5	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 9:05:00 AM

Project: F200

Lab ID: 2005098-005

Matrix: Soil

Client Sample ID: 358-B7-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloromethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Vinyl chloride	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromomethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Trichlorofluoromethane (CFC-11)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloroethane	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloroethene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Methylene chloride	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
trans-1,2-Dichloroethene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
cis-1,2-Dichloroethene	0.0245	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chloroform	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,1-Trichloroethane (TCA)	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1-Dichloropropene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Carbon tetrachloride	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichloroethane (EDC)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Trichloroethene (TCE)	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichloropropane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromodichloromethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Dibromomethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
cis-1,3-Dichloropropene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
trans-1,3-Dichloropropylene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,2-Trichloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,3-Dichloropropane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Tetrachloroethene (PCE)	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Dibromochloromethane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dibromoethane (EDB)	ND	0.00426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Chlorobenzene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,1,2-Tetrachloroethane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromoform	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,1,2,2-Tetrachloroethane	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Bromobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
2-Chlorotoluene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
4-Chlorotoluene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,3-Trichloropropane	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,4-Trichlorobenzene	ND	0.0213		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,3-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,4-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2-Dichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 9:05:00 AM

Project: F200

Lab ID: 2005098-005

Matrix: Soil

Client Sample ID: 358-B7-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Hexachloro-1,3-butadiene	ND	0.0426		mg/Kg-dry	1	5/12/2020 8:04:38 PM
1,2,3-Trichlorobenzene	ND	0.0170		mg/Kg-dry	1	5/12/2020 8:04:38 PM
Surr: Dibromofluoromethane	101	80 - 116		%Rec	1	5/12/2020 8:04:38 PM
Surr: Toluene-d8	99.9	84.8 - 113		%Rec	1	5/12/2020 8:04:38 PM
Surr: 1-Bromo-4-fluorobenzene	98.1	82.8 - 113		%Rec	1	5/12/2020 8:04:38 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	17.0	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 10:35:00 AM

Project: F200

Lab ID: 2005098-008

Matrix: Soil

Client Sample ID: 358-B8-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloromethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Vinyl chloride	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromomethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Trichlorofluoromethane (CFC-11)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloroethane	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloroethene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Methylene chloride	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
trans-1,2-Dichloroethene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
cis-1,2-Dichloroethene	0.205	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chloroform	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,1-Trichloroethane (TCA)	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1-Dichloropropene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Carbon tetrachloride	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichloroethane (EDC)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Trichloroethene (TCE)	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichloropropane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromodichloromethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Dibromomethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
cis-1,3-Dichloropropene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
trans-1,3-Dichloropropylene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,2-Trichloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,3-Dichloropropane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Tetrachloroethene (PCE)	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Dibromochloromethane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dibromoethane (EDB)	ND	0.00661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Chlorobenzene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,1,2-Tetrachloroethane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromoform	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,1,2,2-Tetrachloroethane	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Bromobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
2-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
4-Chlorotoluene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,3-Trichloropropane	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,4-Trichlorobenzene	ND	0.0331		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,3-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,4-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2-Dichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 10:35:00 AM

Project: F200

Lab ID: 2005098-008

Matrix: Soil

Client Sample ID: 358-B8-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Hexachloro-1,3-butadiene	ND	0.0661		mg/Kg-dry	1	5/12/2020 8:34:45 PM
1,2,3-Trichlorobenzene	ND	0.0265		mg/Kg-dry	1	5/12/2020 8:34:45 PM
Surr: Dibromofluoromethane	97.2	80 - 116		%Rec	1	5/12/2020 8:34:45 PM
Surr: Toluene-d8	98.7	84.8 - 113		%Rec	1	5/12/2020 8:34:45 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	82.8 - 113		%Rec	1	5/12/2020 8:34:45 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	17.8	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 10:50:00 AM

Project: F200

Lab ID: 2005098-011

Matrix: Soil

Client Sample ID: 358-B8-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloromethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Vinyl chloride	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromomethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Trichlorofluoromethane (CFC-11)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloroethane	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Methylene chloride	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
trans-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
cis-1,2-Dichloroethene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chloroform	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,1-Trichloroethane (TCA)	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1-Dichloropropene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Carbon tetrachloride	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichloroethane (EDC)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Trichloroethene (TCE)	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichloropropane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromodichloromethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Dibromomethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
cis-1,3-Dichloropropene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
trans-1,3-Dichloropropylene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,2-Trichloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,3-Dichloropropane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Tetrachloroethene (PCE)	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Dibromochloromethane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dibromoethane (EDB)	ND	0.00498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Chlorobenzene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,1,2-Tetrachloroethane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromoform	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,1,2,2-Tetrachloroethane	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Bromobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
2-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
4-Chlorotoluene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,3-Trichloropropane	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,4-Trichlorobenzene	ND	0.0249		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,3-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,4-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2-Dichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM

Original



Client: O'Neill Service Group

Collection Date: 5/11/2020 10:50:00 AM

Project: F200

Lab ID: 2005098-011

Matrix: Soil

Client Sample ID: 358-B8-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Hexachloro-1,3-butadiene	ND	0.0498		mg/Kg-dry	1	5/12/2020 9:04:53 PM
1,2,3-Trichlorobenzene	ND	0.0199		mg/Kg-dry	1	5/12/2020 9:04:53 PM
Surr: Dibromofluoromethane	96.0	80 - 116		%Rec	1	5/12/2020 9:04:53 PM
Surr: Toluene-d8	98.0	84.8 - 113		%Rec	1	5/12/2020 9:04:53 PM
Surr: 1-Bromo-4-fluorobenzene	95.2	82.8 - 113		%Rec	1	5/12/2020 9:04:53 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	11.2	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 11:05:00 AM

Project: F200

Lab ID: 2005098-013

Matrix: Soil

Client Sample ID: 358-B8-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloromethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Vinyl chloride	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromomethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Trichlorofluoromethane (CFC-11)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloroethane	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Methylene chloride	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
trans-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
cis-1,2-Dichloroethene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chloroform	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,1-Trichloroethane (TCA)	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1-Dichloropropene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Carbon tetrachloride	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichloroethane (EDC)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Trichloroethene (TCE)	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichloropropane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromodichloromethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Dibromomethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
cis-1,3-Dichloropropene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
trans-1,3-Dichloropropylene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,2-Trichloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,3-Dichloropropane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Tetrachloroethene (PCE)	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Dibromochloromethane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dibromoethane (EDB)	ND	0.00611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Chlorobenzene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,1,2-Tetrachloroethane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromoform	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,1,2,2-Tetrachloroethane	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Bromobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
2-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
4-Chlorotoluene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,3-Trichloropropane	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,4-Trichlorobenzene	ND	0.0305		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,3-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,4-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 11:05:00 AM

Project: F200

Lab ID: 2005098-013

Matrix: Soil

Client Sample ID: 358-B8-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Hexachloro-1,3-butadiene	ND	0.0611		mg/Kg-dry	1	5/12/2020 9:34:59 PM
1,2,3-Trichlorobenzene	ND	0.0244		mg/Kg-dry	1	5/12/2020 9:34:59 PM
Surr: Dibromofluoromethane	96.2	80 - 116		%Rec	1	5/12/2020 9:34:59 PM
Surr: Toluene-d8	99.4	84.8 - 113		%Rec	1	5/12/2020 9:34:59 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	82.8 - 113		%Rec	1	5/12/2020 9:34:59 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	11.9	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:30:00 PM

Project: F200

Lab ID: 2005098-016

Matrix: Soil

Client Sample ID: 358-B9-7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloromethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Vinyl chloride	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromomethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Trichlorofluoromethane (CFC-11)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloroethane	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Methylene chloride	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
trans-1,2-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
cis-1,2-Dichloroethene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chloroform	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,1-Trichloroethane (TCA)	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1-Dichloropropene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Carbon tetrachloride	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichloroethane (EDC)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Trichloroethene (TCE)	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichloropropane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromodichloromethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Dibromomethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
cis-1,3-Dichloropropene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
trans-1,3-Dichloropropylene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,2-Trichloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,3-Dichloropropane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Tetrachloroethene (PCE)	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Dibromochloromethane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dibromoethane (EDB)	ND	0.00247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Chlorobenzene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,1,2-Tetrachloroethane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromoform	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,1,1,2,2-Tetrachloroethane	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Bromobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
2-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
4-Chlorotoluene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,3-Trichloropropane	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,4-Trichlorobenzene	ND	0.0124		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,3-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,4-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2-Dichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:30:00 PM

Project: F200

Lab ID: 2005098-016

Matrix: Soil

Client Sample ID: 358-B9-7.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Hexachloro-1,3-butadiene	ND	0.0247		mg/Kg-dry	1	5/12/2020 10:05:09 PM
1,2,3-Trichlorobenzene	ND	0.00989		mg/Kg-dry	1	5/12/2020 10:05:09 PM
Surr: Dibromofluoromethane	96.3	80 - 116		%Rec	1	5/12/2020 10:05:09 PM
Surr: Toluene-d8	97.9	84.8 - 113		%Rec	1	5/12/2020 10:05:09 PM
Surr: 1-Bromo-4-fluorobenzene	95.6	82.8 - 113		%Rec	1	5/12/2020 10:05:09 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	11.8	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:40:00 PM

Project: F200

Lab ID: 2005098-018

Matrix: Soil

Client Sample ID: 358-B9-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloromethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Vinyl chloride	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromomethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Trichlorofluoromethane (CFC-11)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloroethane	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Methylene chloride	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
trans-1,2-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
cis-1,2-Dichloroethene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chloroform	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,1-Trichloroethane (TCA)	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1-Dichloropropene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Carbon tetrachloride	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichloroethane (EDC)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Trichloroethene (TCE)	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichloropropane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromodichloromethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Dibromomethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
cis-1,3-Dichloropropene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
trans-1,3-Dichloropropylene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,2-Trichloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,3-Dichloropropane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Tetrachloroethene (PCE)	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Dibromochloromethane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dibromoethane (EDB)	ND	0.00438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Chlorobenzene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,1,2-Tetrachloroethane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromoform	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,1,1,2,2-Tetrachloroethane	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Bromobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
2-Chlorotoluene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
4-Chlorotoluene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,3-Trichloropropane	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,4-Trichlorobenzene	ND	0.0219		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,3-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,4-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2-Dichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:40:00 PM

Project: F200

Lab ID: 2005098-018

Matrix: Soil

Client Sample ID: 358-B9-12.5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Hexachloro-1,3-butadiene	ND	0.0438		mg/Kg-dry	1	5/12/2020 10:35:16 PM
1,2,3-Trichlorobenzene	ND	0.0175		mg/Kg-dry	1	5/12/2020 10:35:16 PM
Surr: Dibromofluoromethane	95.6	80 - 116		%Rec	1	5/12/2020 10:35:16 PM
Surr: Toluene-d8	98.5	84.8 - 113		%Rec	1	5/12/2020 10:35:16 PM
Surr: 1-Bromo-4-fluorobenzene	95.4	82.8 - 113		%Rec	1	5/12/2020 10:35:16 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	9.27	0.500		wt%	1	5/14/2020 9:58:14 AM
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Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:50:00 PM

Project: F200

Lab ID: 2005098-020

Matrix: Soil

Client Sample ID: 358-B9-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloromethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Vinyl chloride	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromomethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Trichlorofluoromethane (CFC-11)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloroethane	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Methylene chloride	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
trans-1,2-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
cis-1,2-Dichloroethene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chloroform	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,1-Trichloroethane (TCA)	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1-Dichloropropene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Carbon tetrachloride	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichloroethane (EDC)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Trichloroethene (TCE)	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichloropropane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromodichloromethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Dibromomethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
cis-1,3-Dichloropropene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
trans-1,3-Dichloropropylene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,2-Trichloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,3-Dichloropropane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Tetrachloroethene (PCE)	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Dibromochloromethane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dibromoethane (EDB)	ND	0.00553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Chlorobenzene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,1,2-Tetrachloroethane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromoform	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,1,1,2,2-Tetrachloroethane	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Bromobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
2-Chlorotoluene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
4-Chlorotoluene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,3-Trichloropropane	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,4-Trichlorobenzene	ND	0.0276		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,3-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,4-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2-Dichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM

Original



Analytical Report

Work Order: 2005098

Date Reported: 5/15/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 1:50:00 PM

Project: F200

Lab ID: 2005098-020

Matrix: Soil

Client Sample ID: 358-B9-20

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28305

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	0.553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Hexachloro-1,3-butadiene	ND	0.0553		mg/Kg-dry	1	5/12/2020 11:05:25 PM
1,2,3-Trichlorobenzene	ND	0.0221		mg/Kg-dry	1	5/12/2020 11:05:25 PM
Surr: Dibromofluoromethane	95.5	80 - 116		%Rec	1	5/12/2020 11:05:25 PM
Surr: Toluene-d8	99.5	84.8 - 113		%Rec	1	5/12/2020 11:05:25 PM
Surr: 1-Bromo-4-fluorobenzene	96.2	82.8 - 113		%Rec	1	5/12/2020 11:05:25 PM

Sample Moisture (Percent Moisture)

Batch ID: R59175

Analyst: EH

Percent Moisture	8.59	0.500		wt%	1	5/14/2020 9:58:14 AM
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Work Order: 2005098

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28305	SampType: LCS	Units: mg/Kg				Prep Date: 5/12/2020		RunNo: 59171			
Client ID: LCSS	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182320			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.10	0.0200	1.000	0	110	21.6	169				
Chloromethane	0.985	0.0500	1.000	0	98.5	45.3	153				
Vinyl chloride	0.970	0.0250	1.000	0	97.0	57.5	137				
Bromomethane	1.28	0.0500	1.000	0	128	32.8	194				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	54.3	152				
Chloroethane	0.925	0.0500	1.000	0	92.5	52	146				
1,1-Dichloroethene	1.04	0.0200	1.000	0	104	62.8	139				
Methylene chloride	1.00	0.0200	1.000	0	100	78.4	118				
trans-1,2-Dichloroethene	1.02	0.0200	1.000	0	102	82	117				
1,1-Dichloroethane	0.973	0.0200	1.000	0	97.3	78	119				
cis-1,2-Dichloroethene	0.993	0.0200	1.000	0	99.3	81.9	116				
Chloroform	1.00	0.0200	1.000	0	100	80.8	117				
1,1,1-Trichloroethane (TCA)	1.00	0.0250	1.000	0	100	81.4	117				
1,1-Dichloropropene	0.997	0.0200	1.000	0	99.7	79.9	117				
Carbon tetrachloride	1.02	0.0500	1.000	0	102	80.4	117				
1,2-Dichloroethane (EDC)	0.988	0.0200	1.000	0	98.8	77.5	117				
Trichloroethene (TCE)	1.00	0.0200	1.000	0	100	83.4	115				
1,2-Dichloropropane	0.937	0.0200	1.000	0	93.7	77.6	117				
Bromodichloromethane	0.967	0.0200	1.000	0	96.7	78.9	116				
Dibromomethane	0.951	0.0200	1.000	0	95.1	81.2	115				
cis-1,3-Dichloropropene	0.939	0.0200	1.000	0	93.9	78	115				
trans-1,3-Dichloropropylene	0.916	0.0200	1.000	0	91.6	75.7	117				
1,1,2-Trichloroethane	0.935	0.0200	1.000	0	93.5	77.9	118				
1,3-Dichloropropane	0.933	0.0250	1.000	0	93.3	77.1	118				
Tetrachloroethene (PCE)	0.982	0.0250	1.000	0	98.2	84.3	117				
Dibromochloromethane	0.921	0.0250	1.000	0	92.1	77.9	118				
1,2-Dibromoethane (EDB)	0.933	0.00500	1.000	0	93.3	78.6	117				
Chlorobenzene	0.997	0.0250	1.000	0	99.7	86.5	113				
1,1,1,2-Tetrachloroethane	0.991	0.0250	1.000	0	99.1	84.8	113				
Bromoform	0.914	0.0500	1.000	0	91.4	70.7	125				
1,1,2,2-Tetrachloroethane	0.883	0.0200	1.000	0	88.3	68.3	125				

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28305		SampType: LCS		Units: mg/Kg		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: LCSS		Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182320	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	0.977	0.0200	1.000	0	97.7	84	117				
2-Chlorotoluene	1.01	0.0250	1.000	0	101	80.4	122				
4-Chlorotoluene	1.00	0.0250	1.000	0	100	83.1	118				
1,2,3-Trichloropropane	0.907	0.0250	1.000	0	90.7	71	125				
1,2,4-Trichlorobenzene	1.00	0.0250	1.000	0	100	81	126				
1,3-Dichlorobenzene	1.03	0.0200	1.000	0	103	90.4	115				
1,4-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dichlorobenzene	1.02	0.0200	1.000	0	102	90.3	115				
1,2-Dibromo-3-chloropropane	0.955	0.500	1.000	0	95.5	62.3	136				
Hexachloro-1,3-butadiene	1.01	0.0500	1.000	0	101	77.8	133				
1,2,3-Trichlorobenzene	0.971	0.0200	1.000	0	97.1	75.9	130				
Surr: Dibromofluoromethane	1.32		1.250		105	80	116				
Surr: Toluene-d8	1.22		1.250		97.5	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		102	82.8	113				

Sample ID: MB-28305		SampType: MBLK		Units: mg/Kg		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: MBLKS		Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182321	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0200									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0500									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0500									
1,1-Dichloroethene	ND	0.0200									
Methylene chloride	ND	0.0200									
trans-1,2-Dichloroethene	ND	0.0200									
1,1-Dichloroethane	ND	0.0200									
cis-1,2-Dichloroethene	ND	0.0200									



Date: 5/15/2020

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28305	SampType: MBLK	Units: mg/Kg			Prep Date: 5/12/2020			RunNo: 59171			
Client ID: MBLKS	Batch ID: 28305	Analysis Date: 5/12/2020						SeqNo: 1182321			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	ND	0.0200									
1,1,1-Trichloroethane (TCA)	ND	0.0250									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0500									
1,2-Dichloroethane (EDC)	ND	0.0200									
Trichloroethene (TCE)	ND	0.0200									
1,2-Dichloropropane	ND	0.0200									
Bromodichloromethane	ND	0.0200									
Dibromomethane	ND	0.0200									
cis-1,3-Dichloropropene	ND	0.0200									
trans-1,3-Dichloropropylene	ND	0.0200									
1,1,2-Trichloroethane	ND	0.0200									
1,3-Dichloropropane	ND	0.0250									
Tetrachloroethene (PCE)	ND	0.0250									
Dibromochloromethane	ND	0.0250									
1,2-Dibromoethane (EDB)	ND	0.00500									
Chlorobenzene	ND	0.0250									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Bromoform	ND	0.0500									
1,1,2,2-Tetrachloroethane	ND	0.0200									
Bromobenzene	ND	0.0200									
2-Chlorotoluene	ND	0.0250									
4-Chlorotoluene	ND	0.0250									
1,2,3-Trichloropropane	ND	0.0250									
1,2,4-Trichlorobenzene	ND	0.0250									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.0500									
1,2,3-Trichlorobenzene	ND	0.0200									

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28305		SampType: MBLK			Units: mg/Kg		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: MBLKS		Batch ID: 28305			Analysis Date: 5/12/2020					SeqNo: 1182321		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	1.16		1.250		92.5	80	116				
Surr: Toluene-d8	1.22		1.250		97.8	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.20		1.250		95.8	82.8	113				

Sample ID: 2005085-004BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH		Batch ID: 28305			Analysis Date: 5/12/2020			SeqNo: 1182297				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0275						0		30	
Chloromethane	ND	0.0688						0		30	
Vinyl chloride	ND	0.0344						0		30	
Bromomethane	ND	0.0688						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0275						0		30	
Chloroethane	ND	0.0688						0		30	
1,1-Dichloroethene	ND	0.0275						0		30	
Methylene chloride	ND	0.0275						0		30	
trans-1,2-Dichloroethene	ND	0.0275						0		30	
1,1-Dichloroethane	ND	0.0275						0		30	
cis-1,2-Dichloroethene	ND	0.0275						0		30	
Chloroform	ND	0.0275						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0344						0		30	
1,1-Dichloropropene	ND	0.0275						0		30	
Carbon tetrachloride	ND	0.0688						0		30	
1,2-Dichloroethane (EDC)	ND	0.0275						0		30	
Trichloroethene (TCE)	ND	0.0275						0		30	
1,2-Dichloropropane	ND	0.0275						0		30	
Bromodichloromethane	ND	0.0275						0		30	
Dibromomethane	ND	0.0275						0		30	
cis-1,3-Dichloropropene	ND	0.0275						0		30	
trans-1,3-Dichloropropylene	ND	0.0275						0		30	

Work Order: 2005098

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-004BDUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH	Batch ID: 28305	Analysis Date: 5/12/2020							SeqNo: 1182297		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2-Trichloroethane	ND	0.0275						0		30	
1,3-Dichloropropane	ND	0.0344						0		30	
Tetrachloroethene (PCE)	ND	0.0344						0		30	
Dibromochloromethane	ND	0.0344						0		30	
1,2-Dibromoethane (EDB)	ND	0.00688						0		30	
Chlorobenzene	ND	0.0344						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0344						0		30	
Bromoform	ND	0.0688						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0275						0		30	
Bromobenzene	ND	0.0275						0		30	
2-Chlorotoluene	ND	0.0344						0		30	
4-Chlorotoluene	ND	0.0344						0		30	
1,2,3-Trichloropropane	ND	0.0344						0		30	
1,2,4-Trichlorobenzene	ND	0.0344						0		30	
1,3-Dichlorobenzene	ND	0.0275						0		30	
1,4-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dichlorobenzene	ND	0.0275						0		30	
1,2-Dibromo-3-chloropropane	ND	0.688						0		30	
Hexachloro-1,3-butadiene	ND	0.0688						0		30	
1,2,3-Trichlorobenzene	ND	0.0275						0		30	
Surr: Dibromofluoromethane	1.70		1.720		99.1	80	116		0		
Surr: Toluene-d8	1.73		1.720		101	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.68		1.720		97.7	82.8	113		0		

Sample ID: 2005085-005BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 5/12/2020		RunNo: 59171			
Client ID: BATCH		Batch ID: 28305				Analysis Date: 5/12/2020		SeqNo: 1182299			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.21	0.0235	1.177	0	103	-0.64	180				
Chloromethane	1.25	0.0588	1.177	0	107	33.2	162				

Work Order: 2005098

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 5/12/2020		RunNo: 59171			
Client ID: BATCH		Batch ID: 28305				Analysis Date: 5/12/2020		SeqNo: 1182299			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	1.28	0.0294	1.177	0	109	47.2	146				
Bromomethane	1.99	0.0588	1.177	0	169	18.7	226				
Trichlorofluoromethane (CFC-11)	1.35	0.0235	1.177	0	114	48.9	158				
Chloroethane	1.44	0.0588	1.177	0	123	20.8	195				
1,1-Dichloroethene	1.33	0.0235	1.177	0	113	67.1	135				
Methylene chloride	1.26	0.0235	1.177	0	107	64.9	137				
trans-1,2-Dichloroethene	1.32	0.0235	1.177	0	113	75.1	126				
1,1-Dichloroethane	1.29	0.0235	1.177	0	110	68.4	132				
cis-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	76.2	125				
Chloroform	1.29	0.0235	1.177	0	110	74.5	127				
1,1,1-Trichloroethane (TCA)	1.33	0.0294	1.177	0	113	74.5	126				
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128				
Carbon tetrachloride	1.33	0.0588	1.177	0	113	72.5	126				
1,2-Dichloroethane (EDC)	1.30	0.0235	1.177	0	110	70.4	128				
Trichloroethene (TCE)	1.29	0.0235	1.177	0	109	64.7	145				
1,2-Dichloropropane	1.26	0.0235	1.177	0	107	69.3	129				
Bromodichloromethane	1.26	0.0235	1.177	0	107	75.9	120				
Dibromomethane	1.25	0.0235	1.177	0	106	78.5	123				
cis-1,3-Dichloropropene	1.23	0.0235	1.177	0	104	67.3	122				
trans-1,3-Dichloropropylene	1.18	0.0235	1.177	0	100	64.4	124				
1,1,2-Trichloroethane	1.24	0.0235	1.177	0	106	72.4	129				
1,3-Dichloropropane	1.26	0.0294	1.177	0	107	70.5	128				
Tetrachloroethene (PCE)	1.28	0.0294	1.177	0	109	64.9	140				
Dibromochloromethane	1.20	0.0294	1.177	0	102	71.8	125				
1,2-Dibromoethane (EDB)	1.25	0.00588	1.177	0	106	73.8	126				
Chlorobenzene	1.26	0.0294	1.177	0	107	85.1	118				
1,1,1,2-Tetrachloroethane	1.26	0.0294	1.177	0	107	82.2	118				
Bromoform	1.18	0.0588	1.177	0	100	66.1	130				
1,1,2,2-Tetrachloroethane	1.25	0.0235	1.177	0	106	41.2	150				
Bromobenzene	1.23	0.0235	1.177	0	105	84.6	121				
2-Chlorotoluene	1.24	0.0294	1.177	0	105	78.4	128				

Work Order: 2005098

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 5/12/2020		RunNo: 59171			
Client ID: BATCH	Batch ID: 28305					Analysis Date: 5/12/2020		SeqNo: 1182299			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorotoluene	1.24	0.0294	1.177	0	106	81.2	123				
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132				
1,2,4-Trichlorobenzene	1.26	0.0294	1.177	0	107	68.9	139				
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120				
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119				
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120				
1,2-Dibromo-3-chloropropane	1.21	0.588	1.177	0	103	56.6	144				
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148				
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150				
Surr: Dibromofluoromethane	1.58		1.471		107	80	116				
Surr: Toluene-d8	1.49		1.471		101	84.8	113				
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113				

Sample ID: 2005085-005BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH	Batch ID: 28305	Analysis Date: 5/12/2020							SeqNo: 1182300		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.20	0.0235	1.177	0	102	-0.64	180	1.211	0.979	30	
Chloromethane	1.29	0.0588	1.177	0	109	33.2	162	1.254	2.57	30	
Vinyl chloride	1.27	0.0294	1.177	0	108	47.2	146	1.278	0.929	30	
Bromomethane	1.83	0.0588	1.177	0	155	18.7	226	1.994	8.76	30	
Trichlorofluoromethane (CFC-11)	1.34	0.0235	1.177	0	114	48.9	158	1.346	0.454	30	
Chloroethane	1.41	0.0588	1.177	0	120	20.8	195	1.442	2.39	30	
1,1-Dichloroethene	1.28	0.0235	1.177	0	109	67.1	135	1.326	3.46	30	
Methylene chloride	1.21	0.0235	1.177	0	103	64.9	137	1.256	3.38	30	
trans-1,2-Dichloroethene	1.28	0.0235	1.177	0	109	75.1	126	1.325	3.29	30	
1,1-Dichloroethane	1.25	0.0235	1.177	0	106	68.4	132	1.290	2.94	30	
cis-1,2-Dichloroethene	1.25	0.0235	1.177	0	106	76.2	125	1.278	2.27	30	
Chloroform	1.26	0.0235	1.177	0	107	74.5	127	1.291	2.15	30	
1,1,1-Trichloroethane (TCA)	1.30	0.0294	1.177	0	110	74.5	126	1.334	2.60	30	

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 5/12/2020			RunNo: 59171		
Client ID: BATCH	Batch ID: 28305	Analysis Date: 5/12/2020							SeqNo: 1182300		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	1.33	0.0235	1.177	0	113	70.7	128	1.327	0.250	30	
Carbon tetrachloride	1.31	0.0588	1.177	0	111	72.5	126	1.329	1.25	30	
1,2-Dichloroethane (EDC)	1.25	0.0235	1.177	0	106	70.4	128	1.297	3.83	30	
Trichloroethene (TCE)	1.26	0.0235	1.177	0	107	64.7	145	1.287	2.16	30	
1,2-Dichloropropane	1.23	0.0235	1.177	0	105	69.3	129	1.262	2.41	30	
Bromodichloromethane	1.22	0.0235	1.177	0	104	75.9	120	1.263	3.15	30	
Dibromomethane	1.21	0.0235	1.177	0	103	78.5	123	1.252	3.05	30	
cis-1,3-Dichloropropene	1.19	0.0235	1.177	0	101	67.3	122	1.226	3.16	30	
trans-1,3-Dichloropropylene	1.16	0.0235	1.177	0	98.9	64.4	124	1.182	1.54	30	
1,1,2-Trichloroethane	1.22	0.0235	1.177	0	103	72.4	129	1.242	2.07	30	
1,3-Dichloropropane	1.22	0.0294	1.177	0	103	70.5	128	1.257	3.41	30	
Tetrachloroethene (PCE)	1.26	0.0294	1.177	0	107	64.9	140	1.280	1.69	30	
Dibromochloromethane	1.18	0.0294	1.177	0	100	71.8	125	1.197	1.28	30	
1,2-Dibromoethane (EDB)	1.20	0.00588	1.177	0	102	73.8	126	1.253	4.34	30	
Chlorobenzene	1.25	0.0294	1.177	0	107	85.1	118	1.262	0.589	30	
1,1,1,2-Tetrachloroethane	1.23	0.0294	1.177	0	105	82.2	118	1.263	2.40	30	
Bromoform	1.14	0.0588	1.177	0	96.9	66.1	130	1.178	3.23	30	
1,1,2,2-Tetrachloroethane	1.26	0.0235	1.177	0	107	41.2	150	1.253	0.312	30	
Bromobenzene	1.23	0.0235	1.177	0	104	84.6	121	1.231	0.137	30	
2-Chlorotoluene	1.23	0.0294	1.177	0	104	78.4	128	1.241	0.969	30	
4-Chlorotoluene	1.24	0.0294	1.177	0	105	81.2	123	1.243	0.382	30	
1,2,3-Trichloropropane	1.42	0.0294	1.177	0	121	66.4	132	1.419	0.0349	30	
1,2,4-Trichlorobenzene	1.27	0.0294	1.177	0	108	68.9	139	1.261	0.295	30	
1,3-Dichlorobenzene	1.27	0.0235	1.177	0	108	87.8	120	1.270	0.290	30	
1,4-Dichlorobenzene	1.26	0.0235	1.177	0	107	88.1	119	1.258	0.561	30	
1,2-Dichlorobenzene	1.27	0.0235	1.177	0	108	88.1	120	1.270	0.128	30	
1,2-Dibromo-3-chloropropane	1.25	0.588	1.177	0	106	56.6	144	1.208	3.58	30	
Hexachloro-1,3-butadiene	1.38	0.0588	1.177	0	117	64.8	148	1.377	0.298	30	
1,2,3-Trichlorobenzene	1.29	0.0235	1.177	0	110	59.3	150	1.293	0.0884	30	
Surr: Dibromofluoromethane	1.56		1.471		106	80	116		0		
Surr: Toluene-d8	1.46		1.471		99.3	84.8	113		0		

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005085-005BMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 5/12/2020		RunNo: 59171			
Client ID: BATCH		Batch ID: 28305				Analysis Date: 5/12/2020		SeqNo: 1182300			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.47		1.471		100	82.8	113		0		

Sample ID: 2005098-001BDUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 5/12/2020			RunNo: 59171			
Client ID: 358-B7-5	Batch ID: 28305				Analysis Date: 5/12/2020			SeqNo: 1182308			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0185						0		30	
Chloromethane	ND	0.0463						0		30	
Vinyl chloride	ND	0.0231						0		30	
Bromomethane	ND	0.0463						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0185						0		30	
Chloroethane	ND	0.0463						0		30	
1,1-Dichloroethene	ND	0.0185						0		30	
Methylene chloride	ND	0.0185						0		30	
trans-1,2-Dichloroethene	ND	0.0185						0		30	
1,1-Dichloroethane	ND	0.0185						0		30	
cis-1,2-Dichloroethene	0.0529	0.0185						0.05089	3.80	30	
Chloroform	ND	0.0185						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0231						0		30	
1,1-Dichloropropene	ND	0.0185						0		30	
Carbon tetrachloride	ND	0.0463						0		30	
1,2-Dichloroethane (EDC)	ND	0.0185						0		30	
Trichloroethene (TCE)	ND	0.0185						0		30	
1,2-Dichloropropane	ND	0.0185						0		30	
Bromodichloromethane	ND	0.0185						0		30	
Dibromomethane	ND	0.0185						0		30	
cis-1,3-Dichloropropene	ND	0.0185						0		30	
trans-1,3-Dichloropropylene	ND	0.0185						0		30	
1,1,2-Trichloroethane	ND	0.0185						0		30	
1,3-Dichloropropane	ND	0.0231						0		30	

Work Order: 2005098
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005098-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 5/12/2020			RunNo: 59171		
Client ID: 358-B7-5		Batch ID: 28305					Analysis Date: 5/12/2020			SeqNo: 1182308	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	0.0437	0.0231						0.04384	0.310	30	
Dibromochloromethane	ND	0.0231						0		30	
1,2-Dibromoethane (EDB)	ND	0.00463						0		30	
Chlorobenzene	ND	0.0231						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0231						0		30	
Bromoform	ND	0.0463						0		30	
1,1,2,2-Tetrachloroethane	ND	0.0185						0		30	
Bromobenzene	ND	0.0185						0		30	
2-Chlorotoluene	ND	0.0231						0		30	
4-Chlorotoluene	ND	0.0231						0		30	
1,2,3-Trichloropropane	ND	0.0231						0		30	
1,2,4-Trichlorobenzene	ND	0.0231						0		30	
1,3-Dichlorobenzene	ND	0.0185						0		30	
1,4-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dichlorobenzene	ND	0.0185						0		30	
1,2-Dibromo-3-chloropropane	ND	0.463						0		30	
Hexachloro-1,3-butadiene	ND	0.0463						0		30	
1,2,3-Trichlorobenzene	ND	0.0185						0		30	
Surr: Dibromofluoromethane	1.11		1.157		95.7	80	116		0		
Surr: Toluene-d8	1.14		1.157		98.4	84.8	113		0		
Surr: 1-Bromo-4-fluorobenzene	1.12		1.157		96.5	82.8	113		0		

Client Name: **ONEILL**

Work Order Number: **2005098**

Logged by: **Clare Griggs**

Date Received: **5/11/2020 4:45:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of >2°C to 6°C * Yes ☐ No ☒ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler	6.2
Sample	6.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/12 Page: 1 of 2

Laboratory Project No (internal): 2005048

Client: 059

Project No: 2021

Address:

Collected by: ATKINS

City, State, Zip:

Location: F350

Telephone:

Report To (PM): ATKINS

Fax:

PM Email:

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Special Remarks:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 358-B7- 25 5	5/11/12	825	S	X													
2		830															
3		845		X													
4		855															
5		905		X													
6		910															
7 358-B8-2.5		1030															
8		1035		X													
9		1040															
10		1045															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished Date/Time

Date/Time

x Ca O

5/11/12 - 1620

Relinquished Date/Time

Date/Time

x Received 5/11/12 1645

Date/Time

Turn-around Time:

☒ Standard

☐ 3 Day

☐ 2 Day

☐ Next Day

☐ Same Day

(Specify)



3600 Fremont Ave. N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/20 Page: 2 of 2

Laboratory Project No (internal): 20050099

Project Name: F200

Special Remarks:

Project No: 2021

Collected by: ARWWS

Location: F2358

Report To (PM): ARWWS

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

City, State, Zip:

Telephone:

Fax: PM Email:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	Diesel/Heavy Oil Range Organics (DO)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1358-38-12.5	5/11/20	1330	S	X													
2	-15	1100															
3	-20	1105															
4	-25	1115															
5	358-39-2.5	1315															
6	-7.5	1330		X													
7	-10	1335															
8	-12.5	1340															
9	-15	1345															
10	-20	1350		X													
11	-25	1400															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: *La Q* Date/Time: 5/11/20-1620

Received: *Emilia* Date/Time: 5/11/20 1645

Relinquished: *x* Received: *x*

Turn-around Time: ☒ Standard ☐ 3 Day ☐ 2 Day ☐ Next Day ☐ Same Day (specify)



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

O'Neill Service Group

Vance Atkins
17619 NE 67th Court, Suite 100
Redmond, WA 98052

RE: F200

Work Order Number: 2005099

May 19, 2020

Attention Vance Atkins:

Fremont Analytical, Inc. received 3 sample(s) on 5/11/2020 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CLIENT: O'Neill Service Group
Project: F200
Work Order: 2005099

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2005099-001	358-B6-GW	05/11/2020 10:15 AM	05/11/2020 4:45 PM
2005099-002	358-B7-GW	05/11/2020 2:45 PM	05/11/2020 4:45 PM
2005099-003	Trip Blank	05/06/2020 12:00 AM	05/11/2020 4:45 PM

CLIENT: O'Neill Service Group**Project:** F200

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2005099
Date Reported: 5/19/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 10:15:00 AM

Project: F200

Lab ID: 2005099-001

Matrix: Groundwater

Client Sample ID: 358-B6-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28339

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloromethane	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
Vinyl chloride	ND	0.200		µg/L	1	5/16/2020 1:47:05 AM
Bromomethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Methylene chloride	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
cis-1,2-Dichloroethene	17.8	1.00		µg/L	1	5/16/2020 1:47:05 AM
Chloroform	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Trichloroethene (TCE)	6.24	0.500		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Dibromomethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Tetrachloroethene (PCE)	6.08	1.00		µg/L	1	5/16/2020 1:47:05 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/16/2020 1:47:05 AM
Chlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromoform	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Bromobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/16/2020 1:47:05 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM

Original



Analytical Report

Work Order: 2005099
Date Reported: 5/19/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 10:15:00 AM

Project: F200

Lab ID: 2005099-001

Matrix: Groundwater

Client Sample ID: 358-B6-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28339

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/16/2020 1:47:05 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/16/2020 1:47:05 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/16/2020 1:47:05 AM
Surr: Dibromofluoromethane	99.0	81.1 - 118		%Rec	1	5/16/2020 1:47:05 AM
Surr: Toluene-d8	98.8	85.7 - 113		%Rec	1	5/16/2020 1:47:05 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	84.2 - 111		%Rec	1	5/16/2020 1:47:05 AM



Analytical Report

Work Order: 2005099

Date Reported: 5/19/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 2:45:00 PM

Project: F200

Lab ID: 2005099-002

Matrix: Groundwater

Client Sample ID: 358-B7-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28339

Analyst: KT

Dichlorodifluoromethane (CFC-12)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloromethane	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
Vinyl chloride	18.8	0.200		µg/L	1	5/16/2020 2:17:21 AM
Bromomethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Trichlorofluoromethane (CFC-11)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Methylene chloride	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
cis-1,2-Dichloroethene	33.6	1.00		µg/L	1	5/16/2020 2:17:21 AM
Chloroform	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,1-Trichloroethane (TCA)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Carbon tetrachloride	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichloroethane (EDC)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Trichloroethene (TCE)	2.99	0.500		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromodichloromethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Dibromomethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
trans-1,3-Dichloropropylene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,3-Dichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Dibromochloromethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dibromoethane (EDB)	ND	0.250		µg/L	1	5/16/2020 2:17:21 AM
Chlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromoform	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Bromobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
2-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
4-Chlorotoluene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	5/16/2020 2:17:21 AM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM

Original



Analytical Report

Work Order: 2005099
Date Reported: 5/19/2020

Client: O'Neill Service Group

Collection Date: 5/11/2020 2:45:00 PM

Project: F200

Lab ID: 2005099-002

Matrix: Groundwater

Client Sample ID: 358-B7-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 28339

Analyst: KT

1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	5/16/2020 2:17:21 AM
Hexachloro-1,3-butadiene	ND	4.00		µg/L	1	5/16/2020 2:17:21 AM
1,2,3-Trichlorobenzene	ND	4.00		µg/L	1	5/16/2020 2:17:21 AM
Surr: Dibromofluoromethane	96.6	81.1 - 118		%Rec	1	5/16/2020 2:17:21 AM
Surr: Toluene-d8	99.3	85.7 - 113		%Rec	1	5/16/2020 2:17:21 AM
Surr: 1-Bromo-4-fluorobenzene	98.8	84.2 - 111		%Rec	1	5/16/2020 2:17:21 AM

Work Order: 2005099

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28339	SampType: LCS	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: LCSW	Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183340		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.7	1.00	20.00	0	73.5	14.5	175				
Chloromethane	16.8	2.00	20.00	0	84.1	44.8	153				
Vinyl chloride	18.2	0.200	20.00	0	90.9	64.1	131				
Bromomethane	20.1	1.00	20.00	0	100	34.2	171				
Trichlorofluoromethane (CFC-11)	19.3	1.00	20.00	0	96.4	77.4	121				
Chloroethane	19.3	1.00	20.00	0	96.5	73.3	123				
1,1-Dichloroethene	19.5	1.00	20.00	0	97.4	81.8	116				
Methylene chloride	20.2	1.00	20.00	0	101	80.4	116				
trans-1,2-Dichloroethene	19.9	1.00	20.00	0	99.7	83.1	115				
1,1-Dichloroethane	19.4	1.00	20.00	0	97.1	79.5	119				
cis-1,2-Dichloroethene	19.8	1.00	20.00	0	99.2	83.5	115				
Chloroform	20.1	1.00	20.00	0	101	81	117				
1,1,1-Trichloroethane (TCA)	19.7	1.00	20.00	0	98.5	82.8	116				
1,1-Dichloropropene	19.9	1.00	20.00	0	99.6	81.5	117				
Carbon tetrachloride	19.6	1.00	20.00	0	98.1	83.3	114				
1,2-Dichloroethane (EDC)	19.8	1.00	20.00	0	98.8	78.4	118				
Trichloroethene (TCE)	20.3	0.500	20.00	0	101	82.2	116				
1,2-Dichloropropane	20.5	1.00	20.00	0	103	78	120				
Bromodichloromethane	19.9	1.00	20.00	0	99.5	80.9	116				
Dibromomethane	20.2	1.00	20.00	0	101	80	117				
cis-1,3-Dichloropropene	20.6	1.00	20.00	0	103	79.8	118				
trans-1,3-Dichloropropylene	20.5	1.00	20.00	0	102	75.8	122				
1,1,2-Trichloroethane	20.7	1.00	20.00	0	103	77.8	120				
1,3-Dichloropropane	20.6	1.00	20.00	0	103	76.5	121				
Tetrachloroethene (PCE)	20.3	1.00	20.00	0	101	86.2	114				
Dibromochloromethane	21.0	1.00	20.00	0	105	78	117				
1,2-Dibromoethane (EDB)	20.6	0.250	20.00	0	103	76.8	120				
Chlorobenzene	19.8	1.00	20.00	0	99.1	85.2	112				
1,1,1,2-Tetrachloroethane	19.7	1.00	20.00	0	98.4	85.5	110				

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-28339	SampType: LCS	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: LCSW	Batch ID: 28339	Analysis Date: 5/15/2020						SeqNo: 1183340			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	19.7	2.00	20.00	0	98.6	73.4	119				
1,1,2,2-Tetrachloroethane	20.1	1.00	20.00	0	101	74.8	124				
Bromobenzene	19.7	1.00	20.00	0	98.3	83.2	116				
2-Chlorotoluene	20.0	1.00	20.00	0	100	81.8	119				
4-Chlorotoluene	19.6	1.00	20.00	0	98.0	81.6	118				
1,2,3-Trichloropropane	19.9	1.00	20.00	0	99.6	73.2	126				
1,2,4-Trichlorobenzene	19.6	2.00	20.00	0	98.1	68.7	138				
1,3-Dichlorobenzene	20.5	1.00	20.00	0	103	90.7	114				
1,4-Dichlorobenzene	20.6	1.00	20.00	0	103	90.1	114				
1,2-Dichlorobenzene	20.5	1.00	20.00	0	103	90.1	115				
1,2-Dibromo-3-chloropropane	19.2	1.00	20.00	0	95.9	54.8	147				
Hexachloro-1,3-butadiene	20.3	4.00	20.00	0	101	73.6	134				
1,2,3-Trichlorobenzene	20.3	4.00	20.00	0	102	57.1	150				
Surr: Dibromofluoromethane	26.0		25.00		104	81.1	118				
Surr: Toluene-d8	25.3		25.00		101	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	84.2	111				

Sample ID: MB-28339	SampType: MBLK	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: MBLKW	Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183341		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00									
Chloromethane	ND	2.00									
Vinyl chloride	ND	0.200									
Bromomethane	ND	1.00									
Trichlorofluoromethane (CFC-11)	ND	1.00									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
Methylene chloride	ND	1.00									



Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28339	SampType: MBLK	Units: µg/L			Prep Date: 5/15/2020			RunNo: 59216			
Client ID: MBLKW	Batch ID: 28339				Analysis Date: 5/15/2020			SeqNo: 1183341			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	1.00									
1,1-Dichloroethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
Chloroform	ND	1.00									
1,1,1-Trichloroethane (TCA)	ND	1.00									
1,1-Dichloropropene	ND	1.00									
Carbon tetrachloride	ND	1.00									
1,2-Dichloroethane (EDC)	ND	1.00									
Trichloroethene (TCE)	ND	0.500									
1,2-Dichloropropane	ND	1.00									
Bromodichloromethane	ND	1.00									
Dibromomethane	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
trans-1,3-Dichloropropylene	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,3-Dichloropropane	ND	1.00									
Tetrachloroethene (PCE)	ND	1.00									
Dibromochloromethane	ND	1.00									
1,2-Dibromoethane (EDB)	ND	0.250									
Chlorobenzene	ND	1.00									
1,1,1,2-Tetrachloroethane	ND	1.00									
Bromoform	ND	2.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
Bromobenzene	ND	1.00									
2-Chlorotoluene	ND	1.00									
4-Chlorotoluene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	2.00									
1,3-Dichlorobenzene	ND	1.00									

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-28339	SampType: MBLK	Units: µg/L				Prep Date: 5/15/2020				RunNo: 59216		
Client ID: MBLKW	Batch ID: 28339					Analysis Date: 5/15/2020				SeqNo: 1183341		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,4-Dichlorobenzene	ND	1.00										
1,2-Dichlorobenzene	ND	1.00										
1,2-Dibromo-3-chloropropane	ND	1.00										
Hexachloro-1,3-butadiene	ND	4.00										
1,2,3-Trichlorobenzene	ND	4.00										
Surr: Dibromofluoromethane	24.6		25.00		98.3	81.1	118					
Surr: Toluene-d8	24.9		25.00		99.7	85.7	113					
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.1	84.2	111					

Sample ID: 2005097-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH		Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183297	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005097-001ADUP	SampType: DUP	Units: µg/L			Prep Date: 5/15/2020			RunNo: 59216			
Client ID: BATCH	Batch ID: 28339				Analysis Date: 5/15/2020			SeqNo: 1183297			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	25.3		25.00		101	81.1	118		0		
Surr: Toluene-d8	25.0		25.00		100	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.9		25.00		99.5	84.2	111		0		

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005097-001ADUP	SampType: DUP	Units: µg/L		Prep Date: 5/15/2020	RunNo: 59216
Client ID: BATCH	Batch ID: 28339	Analysis Date: 5/15/2020		SeqNo: 1183297	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Sample ID: 2005107-001ADUP	SampType: DUP	Units: µg/L		Prep Date: 5/15/2020	RunNo: 59216
Client ID: BATCH	Batch ID: 28339	Analysis Date: 5/15/2020		SeqNo: 1183309	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Dichlorodifluoromethane (CFC-12)	ND	1.00						0		30	
Chloromethane	ND	2.00						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	1.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	1.00						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	1.00						0		30	
Methylene chloride	ND	1.00						0		30	
trans-1,2-Dichloroethene	ND	1.00						0		30	
1,1-Dichloroethane	ND	1.00						0		30	
cis-1,2-Dichloroethene	ND	1.00						0		30	
Chloroform	ND	1.00						0		30	
1,1,1-Trichloroethane (TCA)	ND	1.00						0		30	
1,1-Dichloropropene	ND	1.00						0		30	
Carbon tetrachloride	ND	1.00						0		30	
1,2-Dichloroethane (EDC)	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
1,2-Dichloropropane	ND	1.00						0		30	
Bromodichloromethane	ND	1.00						0		30	
Dibromomethane	ND	1.00						0		30	
cis-1,3-Dichloropropene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	1.00						0		30	
1,3-Dichloropropane	ND	1.00						0		30	

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005107-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH		Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183309	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.00						0		30	
Dibromochloromethane	ND	1.00						0		30	
1,2-Dibromoethane (EDB)	ND	0.250						0		30	
Chlorobenzene	ND	1.00						0		30	
1,1,1,2-Tetrachloroethane	ND	1.00						0		30	
Bromoform	ND	2.00						0		30	
1,1,2,2-Tetrachloroethane	ND	1.00						0		30	
Bromobenzene	ND	1.00						0		30	
2-Chlorotoluene	ND	1.00						0		30	
4-Chlorotoluene	ND	1.00						0		30	
1,2,3-Trichloropropane	ND	1.00						0		30	
1,2,4-Trichlorobenzene	ND	2.00						0		30	
1,3-Dichlorobenzene	ND	1.00						0		30	
1,4-Dichlorobenzene	ND	1.00						0		30	
1,2-Dichlorobenzene	ND	1.00						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
Hexachloro-1,3-butadiene	ND	4.00						0		30	
1,2,3-Trichlorobenzene	ND	4.00						0		30	
Surr: Dibromofluoromethane	24.8		25.00		99.4	81.1	118		0		
Surr: Toluene-d8	24.7		25.00		99.0	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	24.8		25.00		99.0	84.2	111		0		

Sample ID: 2005132-003AMS		SampType: MS		Units: µg/L		Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH		Batch ID: 28339				Analysis Date: 5/15/2020			SeqNo: 1183326		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	13.9	1.00	20.00	0	69.5	6.11	189				
Chloromethane	16.2	2.00	20.00	0	81.0	23.9	203				
Vinyl chloride	19.0	0.200	20.00	0	95.0	53.4	152				

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005132-003AMS	SampType: MS	Units: µg/L				Prep Date: 5/15/2020		RunNo: 59216			
Client ID: BATCH	Batch ID: 28339	Analysis Date: 5/15/2020						SeqNo: 1183326			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	20.3	1.00	20.00	0	101	29.7	169				
Trichlorofluoromethane (CFC-11)	20.5	1.00	20.00	0	103	76.7	132				
Chloroethane	20.3	1.00	20.00	0	101	62.5	149				
1,1-Dichloroethene	21.4	1.00	20.00	0	107	84.5	127				
Methylene chloride	20.9	1.00	20.00	0	105	79.9	125				
trans-1,2-Dichloroethene	21.4	1.00	20.00	0	107	86.2	125				
1,1-Dichloroethane	20.5	1.00	20.00	0	102	78.4	131				
cis-1,2-Dichloroethene	20.7	1.00	20.00	0	104	84.5	124				
Chloroform	27.7	1.00	20.00	6.333	107	75.2	131				
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	80.4	131				
1,1-Dichloropropene	21.1	1.00	20.00	0	105	84.2	129				
Carbon tetrachloride	21.2	1.00	20.00	0	106	81.3	130				
1,2-Dichloroethane (EDC)	20.3	1.00	20.00	0	102	74.8	130				
Trichloroethene (TCE)	21.6	0.500	20.00	0	108	82.7	128				
1,2-Dichloropropane	21.0	1.00	20.00	0	105	78.2	130				
Bromodichloromethane	20.9	1.00	20.00	0	104	75.2	130				
Dibromomethane	21.0	1.00	20.00	0	105	74.7	129				
cis-1,3-Dichloropropene	20.5	1.00	20.00	0	103	66.8	129				
trans-1,3-Dichloropropylene	20.0	1.00	20.00	0	100	62.6	132				
1,1,2-Trichloroethane	21.7	1.00	20.00	0	109	70.9	135				
1,3-Dichloropropane	21.3	1.00	20.00	0	106	70.5	132				
Tetrachloroethene (PCE)	21.6	1.00	20.00	0	108	83.2	128				
Dibromochloromethane	21.8	1.00	20.00	0	109	72.9	130				
1,2-Dibromoethane (EDB)	21.2	0.250	20.00	0	106	69.3	132				
Chlorobenzene	20.8	1.00	20.00	0	104	87.8	120				
1,1,1,2-Tetrachloroethane	20.7	1.00	20.00	0	104	86.1	119				
Bromoform	20.6	2.00	20.00	0	103	72.7	127				
1,1,2,2-Tetrachloroethane	20.3	1.00	20.00	0	102	72.6	133				
Bromobenzene	20.5	1.00	20.00	0	103	81.4	126				

Work Order: 2005099
CLIENT: O'Neill Service Group
Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005132-003AMS	SampType: MS	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH	Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183326		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	20.9	1.00	20.00	0	104	70.2	143				
4-Chlorotoluene	20.5	1.00	20.00	0	102	73.5	136				
1,2,3-Trichloropropane	19.2	1.00	20.00	0	96.0	62.4	136				
1,2,4-Trichlorobenzene	18.2	2.00	20.00	0	91.2	52.7	158				
1,3-Dichlorobenzene	20.9	1.00	20.00	0	105	86.9	124				
1,4-Dichlorobenzene	20.8	1.00	20.00	0	104	86.8	123				
1,2-Dichlorobenzene	20.8	1.00	20.00	0	104	85.5	126				
1,2-Dibromo-3-chloropropane	18.7	1.00	20.00	0	93.4	40.6	171				
Hexachloro-1,3-butadiene	20.0	4.00	20.00	0	100	65.1	145				
1,2,3-Trichlorobenzene	19.1	4.00	20.00	0	95.5	34	179				
Surr: Dibromofluoromethane	26.2		25.00		105	81.1	118				
Surr: Toluene-d8	25.4		25.00		102	85.7	113				
Surr: 1-Bromo-4-fluorobenzene	25.5		25.00		102	84.2	111				

Sample ID: 2005132-003AMSD	SampType: MSD	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH	Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183328		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	14.1	1.00	20.00	0	70.5	6.11	189	13.89	1.54	30	
Chloromethane	17.1	2.00	20.00	0	85.4	23.9	203	16.21	5.21	30	
Vinyl chloride	19.1	0.200	20.00	0	95.4	53.4	152	19.00	0.352	30	
Bromomethane	19.0	1.00	20.00	0	94.9	29.7	169	20.29	6.68	30	
Trichlorofluoromethane (CFC-11)	20.6	1.00	20.00	0	103	76.7	132	20.53	0.390	30	
Chloroethane	19.9	1.00	20.00	0	99.7	62.5	149	20.30	1.78	30	
1,1-Dichloroethene	21.7	1.00	20.00	0	109	84.5	127	21.43	1.31	30	
Methylene chloride	21.1	1.00	20.00	0	106	79.9	125	20.92	1.06	30	
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	86.2	125	21.40	0.518	30	
1,1-Dichloroethane	20.6	1.00	20.00	0	103	78.4	131	20.48	0.372	30	
cis-1,2-Dichloroethene	20.9	1.00	20.00	0	104	84.5	124	20.75	0.534	30	

Work Order: 2005099

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005132-003AMSD	SampType: MSD	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH	Batch ID: 28339	Analysis Date: 5/15/2020							SeqNo: 1183328		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloroform	27.2	1.00	20.00	6.333	104	75.2	131	27.67	1.68	30	
1,1,1-Trichloroethane (TCA)	21.0	1.00	20.00	0	105	80.4	131	21.02	0.216	30	
1,1-Dichloropropene	21.2	1.00	20.00	0	106	84.2	129	21.06	0.425	30	
Carbon tetrachloride	21.1	1.00	20.00	0	105	81.3	130	21.20	0.475	30	
1,2-Dichloroethane (EDC)	20.2	1.00	20.00	0	101	74.8	130	20.31	0.637	30	
Trichloroethene (TCE)	21.4	0.500	20.00	0	107	82.7	128	21.64	1.11	30	
1,2-Dichloropropane	20.9	1.00	20.00	0	105	78.2	130	20.97	0.323	30	
Bromodichloromethane	20.5	1.00	20.00	0	103	75.2	130	20.87	1.77	30	
Dibromomethane	20.7	1.00	20.00	0	104	74.7	129	20.96	1.14	30	
cis-1,3-Dichloropropene	20.2	1.00	20.00	0	101	66.8	129	20.52	1.38	30	
trans-1,3-Dichloropropylene	19.9	1.00	20.00	0	99.3	62.6	132	20.05	0.900	30	
1,1,2-Trichloroethane	21.4	1.00	20.00	0	107	70.9	135	21.74	1.75	30	
1,3-Dichloropropane	21.0	1.00	20.00	0	105	70.5	132	21.30	1.19	30	
Tetrachloroethene (PCE)	21.5	1.00	20.00	0	107	83.2	128	21.60	0.626	30	
Dibromochloromethane	21.4	1.00	20.00	0	107	72.9	130	21.78	1.92	30	
1,2-Dibromoethane (EDB)	20.9	0.250	20.00	0	104	69.3	132	21.17	1.37	30	
Chlorobenzene	20.8	1.00	20.00	0	104	87.8	120	20.75	0.456	30	
1,1,1,2-Tetrachloroethane	20.8	1.00	20.00	0	104	86.1	119	20.73	0.122	30	
Bromoform	20.7	2.00	20.00	0	103	72.7	127	20.56	0.564	30	
1,1,2,2-Tetrachloroethane	20.4	1.00	20.00	0	102	72.6	133	20.31	0.642	30	
Bromobenzene	20.6	1.00	20.00	0	103	81.4	126	20.53	0.487	30	
2-Chlorotoluene	21.1	1.00	20.00	0	105	70.2	143	20.86	1.00	30	
4-Chlorotoluene	20.4	1.00	20.00	0	102	73.5	136	20.47	0.183	30	
1,2,3-Trichloropropane	20.1	1.00	20.00	0	101	62.4	136	19.21	4.72	30	
1,2,4-Trichlorobenzene	19.5	2.00	20.00	0	97.6	52.7	158	18.25	6.75	30	
1,3-Dichlorobenzene	21.2	1.00	20.00	0	106	86.9	124	20.93	1.09	30	
1,4-Dichlorobenzene	21.2	1.00	20.00	0	106	86.8	123	20.84	1.67	30	
1,2-Dichlorobenzene	21.2	1.00	20.00	0	106	85.5	126	20.80	1.84	30	
1,2-Dibromo-3-chloropropane	19.4	1.00	20.00	0	97.2	40.6	171	18.67	4.03	30	

Work Order: 2005099

CLIENT: O'Neill Service Group

Project: F200

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2005132-003AMSD	SampType: MSD	Units: µg/L				Prep Date: 5/15/2020			RunNo: 59216		
Client ID: BATCH	Batch ID: 28339					Analysis Date: 5/15/2020			SeqNo: 1183328		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachloro-1,3-butadiene	21.1	4.00	20.00	0	106	65.1	145	20.01	5.48	30	
1,2,3-Trichlorobenzene	20.2	4.00	20.00	0	101	34	179	19.09	5.50	30	
Surr: Dibromofluoromethane	26.0		25.00		104	81.1	118		0		
Surr: Toluene-d8	25.0		25.00		100	85.7	113		0		
Surr: 1-Bromo-4-fluorobenzene	25.6		25.00		102	84.2	111		0		

Client Name: **ONEILL**

Work Order Number: **2005099**

Logged by: **Carissa True**

Date Received: **5/11/2020 4:45:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
4. Shipping container/cooler in good condition? Yes ☒ No ☐
5. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Required ☒
6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
7. Were all items received at a temperature of $>2^{\circ}\text{C}$ to 6°C * Yes ☐ No ☒ NA ☐

Samples were collected the same day and chilled.

8. Sample(s) in proper container(s)? Yes ☒ No ☐
9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
10. Are samples properly preserved? Yes ☒ No ☐
11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
14. Does paperwork match bottle labels? Yes ☒ No ☐
15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
16. Is it clear what analyses were requested? Yes ☒ No ☐
17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

19. Additional remarks:

Item Information

Item #	Temp $^{\circ}\text{C}$
Cooler 1	6.2
Sample 1	6.3
Temp Blank 1	13.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 5/11/20 Page: 1 of 1

Project Name: F200

Project No: 2024

Collected by: ARW

Location: F200

Report To (PM): ARW

PM Email:

Laboratory Project No (Internal): 2005099

Special Remarks:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client:	059		
Address:			
City, State, Zip:			
Telephone:			
Fax:			
Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*
1 358-BC-9W	5/11/20	1015	GW
2 358-BC-9W	5/11/20	1440	GW
3 TPA (Blank)	5/6/20		X
4			
5			
6			
7			
8			
9			
10			
Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water			
**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn			
**Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite			
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.			
Relinquished	Date/Time	Received	Date/Time
Ja Q	5/11/20-1625	ARW	5/11/20 1645
Relinquished	Date/Time	Received	Date/Time
X		X	

Turn-around Time:
☒ Standard
☐ 3 Day
☐ 2 Day
☐ Next Day
Same Day (specify) _____