

Viant Collegeville, LLC
200 WEST 7TH AVENUE
Trappe, PA 19426-0992

Telephone: 610-489-0300

PACKING SLIP

SHIP TO: Ms. Tran Tran
USEPA Region III
Waste & Chemical Mgmt. Division
3WC22
1650 Arch Street
Philadelphia, PA 19103-2029

DATE: 4/16/2021

OUR REF NO:

SHIP METHOD: Fedex Express

QUANTITY: 1

DESCRIPTION: Viant Collegeville, LLC (dba Viant Medical), Montgomery County,
Trappe, PA USEPA Docket No. RCRA-III-055-CA 2021 Annual
Progress Report

NO. OF CONTAINERS: 1

Distribution: Acct, File

From: Jeremy Gross
Manager, Environmental, Health, Safety, Security
Viant Collegeville, LLC
Jeremy.gross@viantmedical.com
P: 610-409-2375



April 15, 2021

Ms. Tran Tran
USEPA Region III
Waste & Chemical Mgmt. Division
3WC22
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Viant Collegeville, LLC (formerly UTI Corporation) USEPA Docket No. RCRA-III-055-CA

Dear Ms. Tran:

In compliance with Section VI.D, Paragraph 5 of the above referenced Administration Order on Consent (AOC), and the USEPA-approved Post Remediation Care Plan, attached we are providing an electronic copy of the 2021 Annual Progress Report for your records.

I certify that the information contained in or accompanying these submissions is true, accurate and complete and under penalty of law that this submission and attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person (s), the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

If you have any questions or require additional information, please do not hesitate to contact me at (610) 409-2375.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jeremy Gross', written over a white background.

Jeremy Gross
Manager, Environmental, Health, Safety & Security

Enclosures

cc:

T.Marks (Marks Environmental), EH&S, RCRA File,
(I:\eng\eh&s\epa order remediation\annual progress report tran_tran 2021 annual

**ANNUAL PROGRESS REPORT
FOR THE
POST REMEDIATION CARE OF
THE GROUNDWATER REMEDIATION SYSTEM
AT THE VIANT COLLEGEVILLE SITE**

**Viant Collegeville LLC.
(formerly UTI Holdings, LLC)
200 West Seventh Ave., Trappe, PA**

MAY 2021

**Prepared by:
Marks Environmental, Inc.
140 Bollinger Road
Elverson, PA 19520**

SECTION 1 INTRODUCTION

This Annual Progress Report provides documentation that Viant Collegeville LLC (Viant) has continued to meet the requirements of Paragraph 5 of the Environmental Covenant (EC) (Activity and Use Limitations).

Viant formerly UTI Holdings LLC (UTI), has been actively remediating groundwater at their Collegeville, Pennsylvania facility located at 200 West 7th Ave., Trappe Borough, Montgomery County, Pennsylvania (site) since 1978. The site is approximately 40 acres in size.

Since 1992 remediation has been conducted under an Administrative Order on Consent, Docket No. RCRA-III-055-CA, executed by Owner and the United States Environmental Protection Agency (USEPA) in March, 1992 (Consent Order). Because the groundwater contamination at the site had been determined to be primarily present within the fractured bedrock (Brunswick Formation), and has historically involved the presence of dense non-aqueous phase liquid (DNAPL) contaminants (trichloroethylene [TCE] and 1,1,1 trichloroethane [TCA]), in 2010 Viant began discussions with the USEPA to allow the consideration of a Technical Impracticability (TI) Waiver for the site. A TI Waiver would allow the establishment of alternative points of compliance (POCs) for the site.

Viant submitted the *Technical Impracticability Determination for Groundwater Remediation, Accellent Inc., Montgomery County, Collegeville, PA* (TI Waiver Request), prepared by Marks Environmental, Inc., in June 2012. The USEPA approved the TI Waiver request for the site on August 22, 2013. A TI Zone was established, within which, attainment was deemed to be technically impracticable. POCs to facilitate ongoing groundwater monitoring, were established outside of the TI Zone.

A Post-Remediation Care Plan (PRCP) was finalized in June 2018. The PRCP presents the groundwater monitoring and routine operation and maintenance (O&M) requirements for the ongoing operation of the Site groundwater extraction system. Sampling and reporting requirements, and an environmental covenant (EC), that will ensure the continued protection of human health and the environment, are also included in the PRCP. The Consent Order that previously held requirements for the site remediation and monitoring, was terminated by the

USEPA on February 7, 2019. Together, the PRCP and the EC provide an enforceable mechanism for the continued operation of the groundwater pump and treat system.

The PRCP was conditionally approved by the USEPA on November 20, 2015 (exclusive of the EC) and the site groundwater monitoring and reporting has been conducted under the PRCP requirements beginning in May 2016.

This Annual Progress Report has been prepared in accordance with the reporting requirements of the PRCP and covers the period from March 2020 through February 2021. Sampling of POC monitoring wells and the TI Zone monitoring wells at the site is required annually and is conducted during February, weather permitting.

The sampling requirements and well designations are summarized in Table 1 below:

Table 1 - Annual Groundwater Monitoring Sample Collection Locations

Well	Sampling Frequency	Sample Parameters and Analysis	
		Compound	EPA Analytical Method
Point of Compliance Wells			
UTM-4	Annual	TCE/TCA	8260B
UTM-7	Annual		
UTM-9	Annual		
UTM-21	Annual		
UTM-23	Annual		
TI Zone Monitoring Wells			
UTM-1	Annual	TCE/TCA	8260B
UTM-6	Annual		
UTM-8	Annual		
UTM-10	Annual		
UTM-11	Annual		
UTM-14	Annual		
UTM-17	Annual		
UTM-20	Annual		
UTM-22	Annual		
QA/QC Samples			
Trip Blank	One per shipment	TCE/TCA	8260B

Figure 1 shows the locations of the POC and TI Zone monitoring wells. The annual groundwater sampling was conducted between February 23 and 25, 2020 consistent with the PRCP. The condition of the well network at the site is good. All monitoring wells have locked steel protective casings.

Sampling was performed using the low-flow sampling method (EPA, Puls and Barcelona, 1995), consistent with historic sampling at the site. A trip blank was submitted to the laboratory for quality assurance/quality control (QA/QC) purposes for each shipment of samples. All samples were placed into a pre-chilled cooler and submitted under chain-of-custody documentation to a Pennsylvania-certified analytical laboratory (currently TestAmerica Pittsburgh Laboratory) for TCE/TCA analysis in accordance with USEPA Method 8260B.

Pre-purge water levels and groundwater table elevation for 12 on-site monitoring wells and the two groundwater extraction wells (during pumping conditions) are included in Table 2. Measured water levels include a pre-purge measurement on each of the sampled monitoring wells, and measured water level in an unsampled monitoring well UTM-16. The water level in UTM-16 is required as part of the monthly water level measurements required by Viant's Delaware River Basin Commission (DRBC) groundwater withdrawal permit. Table 2 also includes the total depth of each on-site monitoring well, the surveyed measuring point reference elevation in feet above mean sea level (ft. msl), and the calculated groundwater elevation for each of the wells for which water level measurements were taken.

Table 2 - 2021 ANNUAL SAMPLING EVENT GROUNDWATER ELEVATIONS

Well ID	Meas. Pt. Elev. (ft MSL)	Date of Meas.	DTW (ft. TOIC)	Groundwater Elevation (ft MSL)	Total Well Depth (ft BGS)
UTM-1	311.98	2/26/2021	147.97	164.01	200
UTM-2	309.37	NA	NM	NM	146
UTM-3	296.50	NA	NM	NM	146
UTM-4	310.49	2/25/2021	58.40	252.09	146
UTM-5	300.16	NA	NM	NM	146
UTM-6	285.13	2/23/2021	22.23	262.90	146
UTM-7	287.41	2/24/2021	27.93	259.48	100
UTM-8	304.86	2/24/2020	40.68	264.18	145
UTM-9	322.40	2/24/2021	25.87	296.53	86
UTM-10	303.35	2/24/2021	36.65	266.70	55
UTM-11	293.99	2/23/2021	100.26	193.73	100
UTM-12	297.91	NA	NM	NM	86
UTM-13	298.86	NA	NM	NM	50
UTM-14	273.50	2/23/2021	8.21	265.29	50
UTM-15	298.02	NA	NM	NM	150
UTM-16	283.87	2/23/2021	14.88	268.99	75
UTM-17	284.53	2/23/2021	34.52	250.01	153
UTM-18	277.52	NA	NM	NM	453
UTM-19	306.81	NA	NM	NM	72
UTM-20	288.84	2/24/2021	39.21	249.63	150
UTM-21	306.49	2/23/2021	50.97	255.52	150
UTM-22	302.20	2/24/2021	52.85	249.35	150
RCRA-1	302.47	NA	NM	NM	86
RCRA-2	296.64	NA	NM	NM	49
RCRA-3	300.52	NA	NM	NM	43
RCRA-4	300.62	NA	NM	NM	78

Notes:

MSL - Mean Sea Level

TOIC - Top of Inner Casing

NM - Not Measured

NA - Not applicable

SECTION 2 RESULTS

Groundwater Quality

The results from the annual sampling of the POC wells and the TI Zone wells, are summarized in Tables 3 and 4, respectively.

Table 3 - Point of Compliance Groundwater Monitoring Results

WELL #	Feb. 2021	
	TCE	TCA
UTM-4	1U	1U
UTM-7	1U	1U
UTM-9	1U	1U
UTM-21	1U	1U
UTM-23	1U	1U

NOTES:

All concentrations reported in micrograms per liter ($\mu\text{g/L}$).

U - Not detected, reporting limit shown

NA - Not Analyzed

J - Result is an estimated value below the laboratory reporting limit.

Table 4 – TI Zone Groundwater Monitoring Results

WELL #	Feb. 2021	
	TCE	TCA
UTM-1	1100	100U
UTM-6	1U	1U
UTM-8	1U	1U
UTM-10	11	1U
UTM-11	6.6	6.1
UTM-14	1U	1U
UTM-17	5.9	7.2
UTM-20	2.3	4.1
UTM-22	4.7	4.5

NOTES:

All concentrations reported in micrograms per liter ($\mu\text{g/L}$).

U - Not detected, reporting limit shown

NA - Not Analyzed

J - Result is an estimated value below the laboratory reporting limit.

As seen in Table 2, there were no exceedances of the USEPA Maximum Contaminant Level (MCL) for any of the POCs during the reporting period covered in this report. The TI Zone

monitoring wells detected TCE and TCA at concentrations consistent with past sampling events. The TCE and TCA concentrations continue to show a long-term decreasing trend in the site groundwater.

The laboratory analytical report is included in Appendix A.

Statistical Analysis

In accordance with the PRCP, any POC that had an exceedance of an MCL during the last eight sampling rounds, will be statistically evaluated to determine whether the statistical average (95% Upper Confidence Level [UCL]) exceeds the MCL. In the event of a non-detect the laboratory reporting limit is used as the value for the purpose of statistical analysis. The statistical evaluation is discussed below.

Only one of the five POC monitoring wells (UTM-4) had an exceedance of an MCL during the last 8 sampling rounds. TCE was detected in UTM-4 at a concentration of 11 micrograms per liter (ug/L) in February 2016. The MCL for TCE is 5 ug/L.

The statistical analysis of these data is included in Appendix B to this report. This intra-well analysis found the 95% UCL for TCE in POC monitoring well UTM-4 is 4.83, below the MCL for this compound. Therefore, no further action is necessary. Sampling of all monitoring wells will continue on an annual basis in accordance with the PRCP. The next groundwater sampling round is scheduled for February 2022.

Groundwater Recovery and Influent/Effluent Monitoring

Groundwater recovery from the two recovery wells, UTM-1 and UTM-11, continued throughout the reporting period, pursuant to Section VI.A.2 of the Consent Order. The two recovery wells operated continuously, with the exception of minor down time for system maintenance. Minor repairs and upgrades of equipment (system shutdowns of less than 8 hours duration) were made during the reporting period. The primary recovery well UTM-1 typically pumps at a rate between 30 and 55 gallons per minute (gpm), depending upon the water table elevation. Secondary recovery well UTM-11 typically pumps at a rate between 10 and 17 gpm since the modification (deepening) of this well in September 2015.

The monthly sampling of the air stripper influent and effluent continued in compliance with Section VI.A.3 of the Consent Order. The quarterly and bimonthly sampling and analysis of Outfall 002 (discharge from the stripping tower) has continued in accordance with Viant's National Pollutant Discharge Elimination System (NPDES) permit (No. PA0042617). There were no exceedances of the NPDES permit limits during the reporting period covered in this annual report.

Water levels continue to be measured monthly at nine on-site monitoring wells in accordance with the DRBC permit (Docket No. D-93-61 (G)-2) for groundwater extraction at the site. There were no exceedances of the withdrawal limits in the DRBC permit during the reporting period covered in this annual report.

Activity Planned for 2021/2022:

Viant will continue the operation and maintenance of the groundwater recovery system during the 2021/2022 reporting period. The next Annual Groundwater Sampling Round will be conducted during February of 2022.

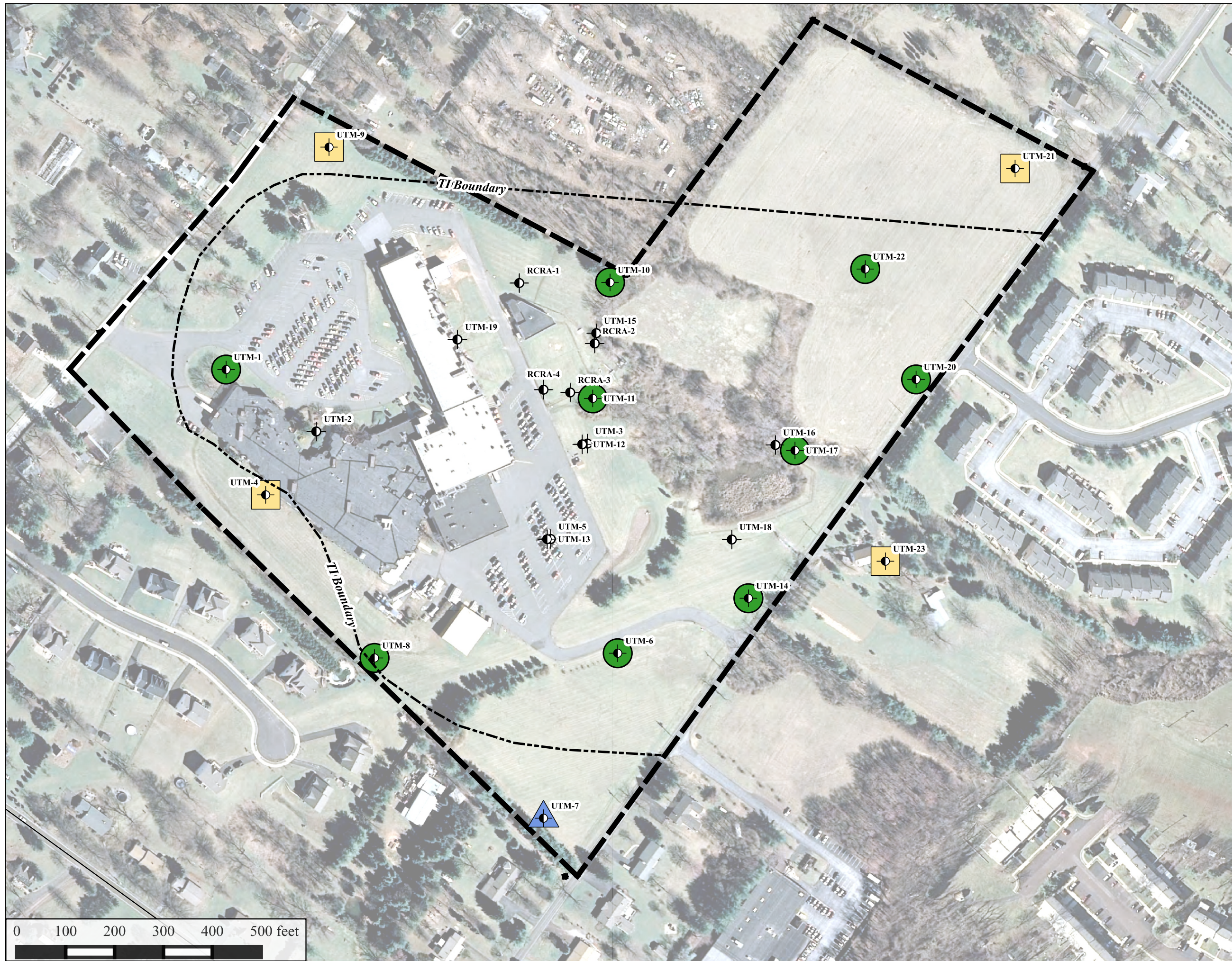
The quarterly NPDES effluent sample from Outfall 002 will be collected during the 2021/2022 reporting period in accordance with Viant's NPDES permit. Monthly water levels will continue to be measured at the site during the 2021/2022 reporting period in accordance with Viant's DRBC permit.

REFERENCES CITED







Puls, R.W. and M.J. Barcelona, December 1995, Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures, United States Environmental Protection Agency (USEPA), EPA/540/5-95/504.

Marks Environmental, Inc., June 11, 2012; Request for Technical Impracticability Determination for Groundwater Remediation, Accellent Inc., Montgomery County, Collegeville, PA.

Figures



Legend

-  LRM Collegeville Land Parcel Boundary - Approximate
-  TI Zone Boundary
-  Monitoring Well
-  TI Zone Monitoring Well
-  Quarterly Point of Compliance Well *
-  Annual Point of Compliance Well

* Quarterly sampling for four quarters, then revert to annual sampling thereafter



Figure 1
 Post-Remediation Groundwater Monitoring Points
 Collegeville Pennsylvania Facility
 Lake Region Medical

Appendix A

Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-117652-1
Client Project/Site: Marks, Viant

For:
Marks Environmental, Inc.
140 Bollinger Road
Elverson, Pennsylvania 19520

Attn: Mr. Tom Marks

Authorized for release by:
3/9/2021 9:17:01 AM

David Dunlap, Senior Project Manager
(412)963-2432
David.Dunlap@Eurofinset.com

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The
Expert**

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www.eurofinsus.com/Env

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

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

PA Lab ID: 02-00416

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Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions/Glossary	4
Certification Summary	5
Sample Summary	6
Method Summary	7
Lab Chronicle	8
Client Sample Results	11
QC Sample Results	16
QC Association Summary	18
Chain of Custody	19
Receipt Checklists	21

Case Narrative

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Job ID: 180-117652-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

**Job Narrative
180-117652-1**

Receipt

The samples were received on 2/26/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method 8260C LL: The following sample was diluted to bring the concentration of target analytes within the calibration range: UTM-1 (180-117652-1). Elevated reporting limits (RLs) are provided.

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



Definitions/Glossary

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



Accreditation/Certification Summary

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Laboratory: Eurofins TestAmerica, Pittsburgh

The accreditations/certifications listed below are applicable to this report.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Pennsylvania	NELAP	02-00416	04-30-21

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Sample Summary

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-117652-1	UTM-1	Water	02/23/21 17:20	02/26/21 10:00	
180-117652-2	UTM-4	Water	02/25/21 11:56	02/26/21 10:00	
180-117652-3	UTM-6	Water	02/23/21 10:55	02/26/21 10:00	
180-117652-4	UTM-7	Water	02/24/21 16:15	02/26/21 10:00	
180-117652-5	UTM-8	Water	02/24/21 17:31	02/26/21 10:00	
180-117652-6	UTM-9	Water	02/24/21 14:41	02/26/21 10:00	
180-117652-7	UTM-10	Water	02/24/21 14:50	02/26/21 10:00	
180-117652-8	UTM-11	Water	02/23/21 16:55	02/26/21 10:00	
180-117652-9	UTM-14	Water	02/23/21 14:23	02/26/21 10:00	
180-117652-10	UTM-17	Water	02/23/21 14:20	02/26/21 10:00	
180-117652-11	UTM-20	Water	02/24/21 11:00	02/26/21 10:00	
180-117652-12	UTM-21	Water	02/23/21 17:01	02/26/21 10:00	
180-117652-13	UTM-22	Water	02/24/21 10:43	02/26/21 10:00	
180-117652-14	UTM-23	Water	02/23/21 15:30	02/26/21 10:00	
180-117652-15	TRIP BLANK	Water	02/23/21 08:00	02/26/21 10:00	



Method Summary

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Method	Method Description	Protocol	Laboratory
EPA 8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT
5030C	Purge and Trap	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058



Lab Chronicle

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-1

Date Collected: 02/23/21 17:20

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		100	5 mL	5 mL	348577	03/06/21 21:16	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-4

Date Collected: 02/25/21 11:56

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 18:45	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-6

Date Collected: 02/23/21 10:55

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 19:16	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-7

Date Collected: 02/24/21 16:15

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 19:46	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-8

Date Collected: 02/24/21 17:31

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 20:16	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-9

Date Collected: 02/24/21 14:41

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 20:46	PJJ	TAL PIT
Instrument ID: CHHP10										

Eurofins TestAmerica, Pittsburgh

Lab Chronicle

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-10

Lab Sample ID: 180-117652-7

Date Collected: 02/24/21 14:50

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	03/01/21 00:20	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-11

Lab Sample ID: 180-117652-8

Date Collected: 02/23/21 16:55

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	03/01/21 00:51	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-14

Lab Sample ID: 180-117652-9

Date Collected: 02/23/21 14:23

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 22:18	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-17

Lab Sample ID: 180-117652-10

Date Collected: 02/23/21 14:20

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 18:14	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-20

Lab Sample ID: 180-117652-11

Date Collected: 02/24/21 11:00

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 21:17	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-21

Lab Sample ID: 180-117652-12

Date Collected: 02/23/21 17:01

Matrix: Water

Date Received: 02/26/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 21:47	PJJ	TAL PIT
Instrument ID: CHHP10										

Eurofins TestAmerica, Pittsburgh



Lab Chronicle

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-22

Date Collected: 02/24/21 10:43

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 22:48	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: UTM-23

Date Collected: 02/23/21 15:30

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 23:19	PJJ	TAL PIT
Instrument ID: CHHP10										

Client Sample ID: TRIP BLANK

Date Collected: 02/23/21 08:00

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 8260C		1	5 mL	5 mL	347882	02/28/21 23:50	PJJ	TAL PIT
Instrument ID: CHHP10										

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

PJJ = Patrick Joumet

Client Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-1

Lab Sample ID: 180-117652-1

Date Collected: 02/23/21 17:20

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	60	ug/L			03/06/21 21:16	100
Trichloroethene	1100		100	69	ug/L			03/06/21 21:16	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		43 - 131		03/06/21 21:16	100
Dibromofluoromethane (Surr)	103		49 - 145		03/06/21 21:16	100
1,2-Dichloroethane-d4 (Surr)	100		34 - 150		03/06/21 21:16	100
Toluene-d8 (Surr)	88		51 - 137		03/06/21 21:16	100

Client Sample ID: UTM-4

Lab Sample ID: 180-117652-2

Date Collected: 02/25/21 11:56

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 18:45	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		43 - 131		02/28/21 18:45	1
Dibromofluoromethane (Surr)	88		49 - 145		02/28/21 18:45	1
1,2-Dichloroethane-d4 (Surr)	81		34 - 150		02/28/21 18:45	1
Toluene-d8 (Surr)	79		51 - 137		02/28/21 18:45	1

Client Sample ID: UTM-6

Lab Sample ID: 180-117652-3

Date Collected: 02/23/21 10:55

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 19:16	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		43 - 131		02/28/21 19:16	1
Dibromofluoromethane (Surr)	79		49 - 145		02/28/21 19:16	1
1,2-Dichloroethane-d4 (Surr)	76		34 - 150		02/28/21 19:16	1
Toluene-d8 (Surr)	103		51 - 137		02/28/21 19:16	1

Client Sample ID: UTM-7

Lab Sample ID: 180-117652-4

Date Collected: 02/24/21 16:15

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 19:46	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		43 - 131		02/28/21 19:46	1
Dibromofluoromethane (Surr)	90		49 - 145		02/28/21 19:46	1
1,2-Dichloroethane-d4 (Surr)	86		34 - 150		02/28/21 19:46	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-7

Date Collected: 02/24/21 16:15

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-4

Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	92		51 - 137		02/28/21 19:46	1

Client Sample ID: UTM-8

Date Collected: 02/24/21 17:31

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-5

Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 20:16	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 20:16	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	92		43 - 131		02/28/21 20:16	1			
Dibromofluoromethane (Surr)	90		49 - 145		02/28/21 20:16	1			
1,2-Dichloroethane-d4 (Surr)	94		34 - 150		02/28/21 20:16	1			
Toluene-d8 (Surr)	93		51 - 137		02/28/21 20:16	1			

Client Sample ID: UTM-9

Date Collected: 02/24/21 14:41

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-6

Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 20:46	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 20:46	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	89		43 - 131		02/28/21 20:46	1			
Dibromofluoromethane (Surr)	87		49 - 145		02/28/21 20:46	1			
1,2-Dichloroethane-d4 (Surr)	85		34 - 150		02/28/21 20:46	1			
Toluene-d8 (Surr)	92		51 - 137		02/28/21 20:46	1			

Client Sample ID: UTM-10

Date Collected: 02/24/21 14:50

Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-7

Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			03/01/21 00:20	1
Trichloroethene	11		1.0	0.69	ug/L			03/01/21 00:20	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	80		43 - 131		03/01/21 00:20	1			
Dibromofluoromethane (Surr)	86		49 - 145		03/01/21 00:20	1			
1,2-Dichloroethane-d4 (Surr)	82		34 - 150		03/01/21 00:20	1			
Toluene-d8 (Surr)	84		51 - 137		03/01/21 00:20	1			

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-11

Lab Sample ID: 180-117652-8

Date Collected: 02/23/21 16:55

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	6.1		1.0	0.60	ug/L			03/01/21 00:51	1
Trichloroethene	6.6		1.0	0.69	ug/L			03/01/21 00:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		43 - 131		03/01/21 00:51	1
Dibromofluoromethane (Surr)	92		49 - 145		03/01/21 00:51	1
1,2-Dichloroethane-d4 (Surr)	86		34 - 150		03/01/21 00:51	1
Toluene-d8 (Surr)	110		51 - 137		03/01/21 00:51	1

Client Sample ID: UTM-14

Lab Sample ID: 180-117652-9

Date Collected: 02/23/21 14:23

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 22:18	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		43 - 131		02/28/21 22:18	1
Dibromofluoromethane (Surr)	91		49 - 145		02/28/21 22:18	1
1,2-Dichloroethane-d4 (Surr)	91		34 - 150		02/28/21 22:18	1
Toluene-d8 (Surr)	109		51 - 137		02/28/21 22:18	1

Client Sample ID: UTM-17

Lab Sample ID: 180-117652-10

Date Collected: 02/23/21 14:20

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	7.2		1.0	0.60	ug/L			02/28/21 18:14	1
Trichloroethene	5.9		1.0	0.69	ug/L			02/28/21 18:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		43 - 131		02/28/21 18:14	1
Dibromofluoromethane (Surr)	90		49 - 145		02/28/21 18:14	1
1,2-Dichloroethane-d4 (Surr)	81		34 - 150		02/28/21 18:14	1
Toluene-d8 (Surr)	96		51 - 137		02/28/21 18:14	1

Client Sample ID: UTM-20

Lab Sample ID: 180-117652-11

Date Collected: 02/24/21 11:00

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.1		1.0	0.60	ug/L			02/28/21 21:17	1
Trichloroethene	2.3		1.0	0.69	ug/L			02/28/21 21:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		43 - 131		02/28/21 21:17	1
Dibromofluoromethane (Surr)	96		49 - 145		02/28/21 21:17	1
1,2-Dichloroethane-d4 (Surr)	95		34 - 150		02/28/21 21:17	1

Eurofins TestAmerica, Pittsburgh

Client Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: UTM-20
Date Collected: 02/24/21 11:00
Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-11
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		51 - 137		02/28/21 21:17	1

Client Sample ID: UTM-21
Date Collected: 02/23/21 17:01
Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-12
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 21:47	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 21:47	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	88		43 - 131		02/28/21 21:47	1			
Dibromofluoromethane (Surr)	91		49 - 145		02/28/21 21:47	1			
1,2-Dichloroethane-d4 (Surr)	95		34 - 150		02/28/21 21:47	1			
Toluene-d8 (Surr)	90		51 - 137		02/28/21 21:47	1			

Client Sample ID: UTM-22
Date Collected: 02/24/21 10:43
Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-13
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.5		1.0	0.60	ug/L			02/28/21 22:48	1
Trichloroethene	4.7		1.0	0.69	ug/L			02/28/21 22:48	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	94		43 - 131		02/28/21 22:48	1			
Dibromofluoromethane (Surr)	96		49 - 145		02/28/21 22:48	1			
1,2-Dichloroethane-d4 (Surr)	94		34 - 150		02/28/21 22:48	1			
Toluene-d8 (Surr)	99		51 - 137		02/28/21 22:48	1			

Client Sample ID: UTM-23
Date Collected: 02/23/21 15:30
Date Received: 02/26/21 10:00

Lab Sample ID: 180-117652-14
Matrix: Water

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 23:19	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 23:19	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	90		43 - 131		02/28/21 23:19	1			
Dibromofluoromethane (Surr)	90		49 - 145		02/28/21 23:19	1			
1,2-Dichloroethane-d4 (Surr)	92		34 - 150		02/28/21 23:19	1			
Toluene-d8 (Surr)	89		51 - 137		02/28/21 23:19	1			

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Client Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 180-117652-15

Date Collected: 02/23/21 08:00

Matrix: Water

Date Received: 02/26/21 10:00

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 23:50	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 23:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		43 - 131					02/28/21 23:50	1
Dibromofluoromethane (Surr)	96		49 - 145					02/28/21 23:50	1
1,2-Dichloroethane-d4 (Surr)	94		34 - 150					02/28/21 23:50	1
Toluene-d8 (Surr)	96		51 - 137					02/28/21 23:50	1



QC Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Method: EPA 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 180-347882/6
Matrix: Water
Analysis Batch: 347882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			02/28/21 15:40	1
Trichloroethene	ND		1.0	0.69	ug/L			02/28/21 15:40	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	94		43 - 131					02/28/21 15:40	1
Dibromofluoromethane (Surr)	84		49 - 145					02/28/21 15:40	1
1,2-Dichloroethane-d4 (Surr)	91		34 - 150					02/28/21 15:40	1
Toluene-d8 (Surr)	85		51 - 137					02/28/21 15:40	1

Lab Sample ID: LCS 180-347882/3
Matrix: Water
Analysis Batch: 347882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1-Trichloroethane	10.0	7.84		ug/L		78	61 - 137
Trichloroethene	10.0	7.69		ug/L		77	64 - 128
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
4-Bromofluorobenzene (Surr)	92		43 - 131				
Dibromofluoromethane (Surr)	86		49 - 145				
1,2-Dichloroethane-d4 (Surr)	98		34 - 150				
Toluene-d8 (Surr)	85		51 - 137				

Lab Sample ID: LCSD 180-347882/4
Matrix: Water
Analysis Batch: 347882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
1,1,1-Trichloroethane	10.0	8.32		ug/L		83	61 - 137	6	24
Trichloroethene	10.0	8.80		ug/L		88	64 - 128	13	23
Surrogate	LCSD LCSD		Limits						
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	102		43 - 131						
Dibromofluoromethane (Surr)	99		49 - 145						
1,2-Dichloroethane-d4 (Surr)	111		34 - 150						
Toluene-d8 (Surr)	92		51 - 137						

Lab Sample ID: MB 180-348577/9
Matrix: Water
Analysis Batch: 348577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		1.0	0.60	ug/L			03/06/21 16:11	1
Trichloroethene	ND		1.0	0.69	ug/L			03/06/21 16:11	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	90		43 - 131					03/06/21 16:11	1

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QC Sample Results

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

Method: EPA 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 180-348577/9
Matrix: Water
Analysis Batch: 348577

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane (Surr)	108		49 - 145		03/06/21 16:11	1
1,2-Dichloroethane-d4 (Surr)	127		34 - 150		03/06/21 16:11	1
Toluene-d8 (Surr)	78		51 - 137		03/06/21 16:11	1

Lab Sample ID: LCS 180-348577/7
Matrix: Water
Analysis Batch: 348577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichloroethene	10.0	10.2		ug/L		102	64 - 128

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	106		43 - 131
Dibromofluoromethane (Surr)	121		49 - 145
1,2-Dichloroethane-d4 (Surr)	127		34 - 150
Toluene-d8 (Surr)	97		51 - 137

Lab Sample ID: LCSD 180-348577/6
Matrix: Water
Analysis Batch: 348577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	10.0	9.96		ug/L		100	64 - 128	2	23

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	94		43 - 131
Dibromofluoromethane (Surr)	107		49 - 145
1,2-Dichloroethane-d4 (Surr)	122		34 - 150
Toluene-d8 (Surr)	81		51 - 137

QC Association Summary

Client: Marks Environmental, Inc.
Project/Site: Marks, Viant

Job ID: 180-117652-1

GC/MS VOA

Analysis Batch: 347882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117652-2	UTM-4	Total/NA	Water	EPA 8260C	
180-117652-3	UTM-6	Total/NA	Water	EPA 8260C	
180-117652-4	UTM-7	Total/NA	Water	EPA 8260C	
180-117652-5	UTM-8	Total/NA	Water	EPA 8260C	
180-117652-6	UTM-9	Total/NA	Water	EPA 8260C	
180-117652-7	UTM-10	Total/NA	Water	EPA 8260C	
180-117652-8	UTM-11	Total/NA	Water	EPA 8260C	
180-117652-9	UTM-14	Total/NA	Water	EPA 8260C	
180-117652-10	UTM-17	Total/NA	Water	EPA 8260C	
180-117652-11	UTM-20	Total/NA	Water	EPA 8260C	
180-117652-12	UTM-21	Total/NA	Water	EPA 8260C	
180-117652-13	UTM-22	Total/NA	Water	EPA 8260C	
180-117652-14	UTM-23	Total/NA	Water	EPA 8260C	
180-117652-15	TRIP BLANK	Total/NA	Water	EPA 8260C	
MB 180-347882/6	Method Blank	Total/NA	Water	EPA 8260C	
LCS 180-347882/3	Lab Control Sample	Total/NA	Water	EPA 8260C	
LCSD 180-347882/4	Lab Control Sample Dup	Total/NA	Water	EPA 8260C	

Analysis Batch: 348577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-117652-1	UTM-1	Total/NA	Water	EPA 8260C	
MB 180-348577/9	Method Blank	Total/NA	Water	EPA 8260C	
LCS 180-348577/7	Lab Control Sample	Total/NA	Water	EPA 8260C	
LCSD 180-348577/6	Lab Control Sample Dup	Total/NA	Water	EPA 8260C	

1
2
3
4
5
6
7
8
9
10
11
12
13

Address: _____

Regulatory Program: DW NPDES RCRA Other: _____

Date below is 2/25/21 as per Tom Marks. D. Dunlap 3/1/21

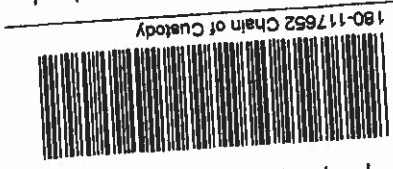
TAL-8210

Client Contact
 Company Name: Marks Environmental
 Address: 140 Bellinger Rd
 City/State/Zip: Elverson PA 19520
 Phone: (610) 909 8250
 Fax: _____
 Project Name: VJANT
 Site: Collegedale, PA
 P O #: _____

Project Manager: Tom Marks
 Site Contact: Tom Marks
 Lab Contact: Tom Marks
 Carrier: Coastal
 Date: 2/24/21
 COC No: 1 of 2 COCs

Analysis Turnaround Time
 CALENDAR DAYS WORKING DAYS
 TAT if different from Below
 2 weeks
 1 week
 2 days
 1 day

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Sample Specific Notes
UTM-1	2/23/21	1720	G	C-W	3	N	N	
UTM-4	2/23/21	1156						
UTM-6	2/23/21	1055						
UTM-7	2/24/21	1615						
UTM-8		1731						
UTM-9		1441						
UTM-10		1750						
UTM-11	2/23/21	1635						
UTM-14		1423						
UTM-17		1420						
UTM-20	2/24/21	1100						
UTM-21	2/23/21	1701						



Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HING3, 5=NaOH, 6=Other: _____

Possible Hazard Identification: _____
 Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: _____

Return to Client Disposal by Lab Archive for _____ Months

Custody Seal Intact: Yes No

Relinquished by: [Signature] Date/Time: 2/24/21 1350
 Company: MEI

Relinquished by: [Signature] Date/Time: 2/25/21 1511
 Company: TA-KOP

Relinquished by: [Signature] Date/Time: _____
 Company: _____

Received by: [Signature] Date/Time: _____
 Company: FAH-H

Received in Laboratory by: _____
 Date/Time: _____



Login Sample Receipt Checklist

Client: Marks Environmental, Inc.

Job Number: 180-117652-1

Login Number: 117652

List Number: 1

Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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



Appendix B

Statistical Analysis

**TCE 95% Upper Confidence Limit for Last 8 POC Well Results vs. MCL
For Data Through 2/21**

Time	UTM-4	UTM-7	UTM-9	UTM-21	UTM-23	MCL
	TCE	TCE	TCE	TCE	TCE	TCE
5/1/04	8.9	1	1	-	-	
11/1/07	3.2	1.3	4.5	-	-	
5/1/10	0.33	-	1	-	-	
8/1/10	1.7	-	0.16	-	-	
11/1/10	1.5	-	1	-	-	
8/1/14	0.78	-	-	1	1	
11/1/14	0.6	-	-	1	1	
2/1/15	0.91	-	-	1	1	
5/15/15	1.6	-	-	1	1	
11/3/15	0.72	-	-	1	-	
2/1/16	11	-	-	1	-	
5/15/16	-	0.5	-	-	-	
8/15/16	-	0.46	-	-	-	
11/3/16	0.46	0.49	0.25	0.47	1	
2/1/17	-	1	-	-	-	
2/23/18	2	1	1	1	1	
2/26/19	1.3	1	1	1	1	
2/25/20	1.1	1	1	1	1	
2/25/21	1	1	1	1	1	

Cell Range	C67:C77	E70:E77	I47:I77	K67:K77	O65:O77
Count (n)	8	8	9	8	8
Standard Deviation (σ)	3.51	0.27	0.35	0.19	0.00
Sample Mean (x)	2.40	0.81	0.82	0.93	1.00
95% Confidence Interval	2.43	0.19	0.23	0.13	#NUM!
95% Lower Confidence Limit	-0.03	0.62	0.59	0.80	#NUM!

95% Upper Confidence Limit (UCL)

	UTM-4	UTM-7	UTM-9	UTM-21	UTM-23	MCL
95% UCL	4.83	0.99	1.05	1.06	#NUM!	5.00

95% UCL for Prior Periods:

11/1/13	0.98	1.58	1.10	1.07	0.91	5.00
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Notes

- (1) "-" indicates reported as Not Analyzed; RL used when not detected.
- (2) "#NUM!" indicates UCL cannot be calculated because all values <1 (i.e., Not Detected)

Data highlighted in Light Green used for check against UCL test