SoundEarth Strategies, Inc.
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Seattle, Washington 98102

April 1, 2020

Mr. Paul Klansnic
Touchstone SLU LLC & TB TS/RELP LLC
1425 Fourth Avenue, Suite 200
Seattle, Washington 98101

Mr. Frank Jakus
Ponte Gadea Seattle LLC
270 Biscayne Boulevard Way, Suite 201
Miami, Florida 33131-2123

SUBJECT: 2019 GROUNDWATER MONITORING REPORT
Troy Laundry Seattle Site
Cleanup Site ID No. 11690
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington
Project Number: 0731-004-08

Dear Mr. Klansnic and Mr. Jakus:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this report to present the results of the 2019 groundwater monitoring events that were conducted at the Troy Laundry Seattle Site (Site). The Site encompasses the property located at 399 Fairview Avenue North and 300 Boren Avenue North in Seattle, Washington (collectively, the Property), as well as the adjacent rights-of-way (ROWs) located north of the Property (Harrison Street), west of the Property (Boren Avenue North), and south of the Property (Thomas Street). The Site also extends onto the adjacent property to south, known as the Seattle Times Site, located at 1120 John Street (Cleanup Site ID 14494). The Site location is shown on Figure 1.

The groundwater monitoring events summarized below were conducted, and this report has been prepared, pursuant to Exhibit A (Scope of Work and Schedule) to the Prospective Purchaser Consent Decree (PPCD) No. 19-2-07344-6 SEA entered into by and between the Washington State Department of Ecology (Ecology) and Ponte Gadea Seattle LLC. The purpose of this report is to summarize compliance groundwater monitoring work completed during calendar year 2019, present the results of groundwater elevation measurements and laboratory analytical results, and provide a statistical trend analysis assessment of chlorinated volatile organic compounds (CVOCs) in groundwater at the Site.

2019 GROUNDWATER MONITORING EVENTS

The 2019 groundwater monitoring events were conducted during the Second and Fourth Quarters (June and December, respectively) of 2019, to assess the groundwater quality, flow direction, and gradient of

groundwater beneath the Site, and to evaluate the effectiveness of the groundwater treatment program that has been implemented as part of SoundEarth's Interim Action Plan dated August 21, 2013, which was approved by Ecology on October 10, 2013.

The 2019 monitoring events included collecting groundwater data from all monitoring wells in the compliance well network as set forth in Exhibit A of the PPCD, as well as additional Site wells, consisting of the following:

- The Property: MW17 through MW25, IW04, IW06, IW50, IW61, and IW91
- Seattle Times Site: MW29[1], MW30[1], ONNI-MW-4[2], and ONNI-MW-5[2]
- Harrison Street ROW: MW01, MW26, MW32[1], and MW33[1]
- Boren Avenue ROW: MW04, MW07, MW13, MW27, and MW31[1]
- Thomas Street ROW: MW28
- Terry Avenue North: MW15[3]

Additionally, supplemental groundwater sampling of select Site wells was conducted in March 2019 (replacement monitoring well MW28), and December 2019 (monitoring well MW28 and new monitoring wells MW29 through MW33).

This report presents a description of field activities performed during the 2019 groundwater monitoring events and the associated laboratory analytical results. Current and historical groundwater elevations and sample analytical results are presented in Tables 1 through 3.

FIELD ACTIVITIES

Upon arrival at the Site for the Second and Fourth Quarters monitoring events, SoundEarth personnel opened all the monitoring wells prior to sampling to collect groundwater level measurements. Water levels were permitted to equilibrate with atmospheric pressure for a minimum of 1 hour before groundwater level measurements were collected. Groundwater levels were measured relative to the top of well casing to an accuracy of 0.01 feet using an electronic water level meter.

During both monitoring events, groundwater level measurements were collected from monitoring wells MW17 through MW25 and injection wells IW91 located on the Property; monitoring well MW15 located in the Terry Avenue North ROW; monitoring wells MW01 and MW26 located in the Harrison Street ROW;

[1] Monitoring wells MW29 through MW33 were installed in September 2019 as part of the Supplemental Remedial Investigation, as described in SoundEarth's Supplemental Remedial Investigation Work Plan, dated March 20, 2019. These wells are not sampled under the PPCD but are now part of the Site monitoring well network, and results will be presented in connection with the Progress Reports to ensure that all data associated with the Site are readily available to Ecology.

[2] Monitoring wells ONNI-MW-4 and ONNI-MW-5 are not part of the Site monitoring well network but were sampled during the Fourth Quarter monitoring event as part of the Remedial Investigation.

[3] MW15 is not sampled under the PPCD, but it is part of the Site monitoring well network, and results will be presented in connection with the Progress Reports to ensure that all data associated with the Site are readily available to Ecology.

monitoring wells MW04, MW07, MW13, and MW27 located in the Boren Avenue North ROW; and monitoring well MW28 located in the Thomas Street ROW. During the Fourth Quarter monitoring event, groundwater level measurements were also collected from monitoring wells MW29, MW30, ONNI-MW-4, and ONNI-MW-5 located on the Seattle Times Site; monitoring wells MW31 located in the Boren Avenue North ROW; and monitoring wells MW32 and MW33 located in the Harrison Street ROW.

On June 13 through 15 and December 4 through 8, 2019, groundwater samples were collected from monitoring wells MW01, MW04, MW07, MW13, MW15, MW17 through MW28, MW29 through MW33 (Fourth Quarter only), IW04, IW06, IW50, IW61, IW91, ONNI-MW-4, and ONNI-MW-5 (Fourth Quarter only) in accordance with the US Environmental Protection Agency (EPA) *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (April 1996). Supplemental sampling of monitoring well MW28 was conducted on March 15, 2019, and supplemental sampling of monitoring wells MW28 through MW33 was conducted on October 8 and 9, 2019.

Purging and sampling of each monitoring well was performed using a bladder pump (monitoring wells MW01, MW04, MW07, MW13, MW15, MW16, MW25 through 33, ONNI-MW-4, and ONNI-MW-5) or a peristaltic pump (monitoring wells MW17 through MW24 and injection wells IW04, IW06, IW50, IW61, and IW91), and dedicated polyethylene tubing at a maximum flow rate of 320 milliliters per minute. The tubing intake was placed approximately 2 to 3 feet below the surface of the groundwater or mid-screen in each sampled monitoring well. During purging, water quality was monitored using a YSI-brand water quality meter equipped with a flow-through cell. The water quality parameters that were monitored and recorded included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each monitoring well was purged until, at a minimum, the subset of pH, specific conductance, and dissolved oxygen or turbidity had stabilized over at least three successive readings. A field duplicate sample was collected from monitoring well MW25 during Second and Fourth Quarters for quality assurance/quality control (QA/QC) purposes.

Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported to one or more of the following testing laboratories under standard chain-of-custody protocols for laboratory analysis: Friedman & Bruya, Inc. of Seattle, Washington; Fremont Analytical of Seattle, Washington; and SiREM of Knoxville, Tennessee.

The groundwater samples were submitted for analysis of one or more of the following:

- Gasoline-range petroleum hydrocarbons (GRPH) by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Gx
- Diesel-range petroleum hydrocarbons (DRPH) and oil-range petroleum hydrocarbons (ORPH) by Method NWTPH-Dx
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021B
- CVOCs, including tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride (VC) by EPA Method 8260C

Groundwater samples collected from monitoring wells MW04, MW07, MW18, MW19, MW21, MW22, MW23, MW24, MW25, MW26, MW28, IW04, IW50, and IW61 were analyzed for one or more of the following natural attenuation parameters:

- Methane, ethane, and ethene by Method RSK 175
- Sulfate, nitrate, and alkalinity by Method SM1845/SM2320B
- Total iron and manganese by EPA Method 200.8
- Ferrous iron by Method SM3500
- Total organic carbon by EPA Method 415.1
- Volatile fatty acids by EPA Methods 300.0 and 300.0 Modified

All groundwater sampling data, including results of natural attenuation parameters, will be uploaded to and available from Ecology's EIM system.

Purge water generated during the monitoring events was placed in an appropriately labeled 55-gallon steel drum and temporarily stored on the Property pending receipt of analytical data and proper disposal.

RESULTS

Groundwater levels and analytical results from the groundwater monitoring and supplemental sampling events are summarized below and presented in Tables 1 through 3. Groundwater elevation contour maps for Second and Fourth Quarters 2019 are presented in Figures 2 and 3. Groundwater analytical results for CVOCs are presented on Figure 4.

March 2019 Supplemental Sampling

Laboratory analytical results from the March 2019 supplemental sampling of monitoring well MW28 were compared to applicable Washington State Model Toxics Control Act (MTCA) Method A or B cleanup levels, as applicable, for groundwater and are summarized below (Figure 4; Table 2):

- Concentrations of PCE, cis-1,2-DCE, and VC exceeding the applicable MTCA Method A or B cleanup levels were detected in the groundwater sample collected from well MW28.
- A concentration of TCE below the MTCA Method A cleanup level was detected in the groundwater sample collected from well MW28.

Second Quarter 2019

Groundwater elevations measured on June 13, 2019, ranged from 11.88 feet North American Vertical Datum of 1988 (NAVD88; monitoring well MW21) to 17.24 feet NAVD88 (monitoring well MW15). Groundwater elevations were contoured using the water level measurements collected on June 13, 2019 (Figure 2; Table 1). The groundwater contours indicated that groundwater at the Site flowed generally to the southeast with a hydraulic gradient of 0.006 feet per foot.

Laboratory analytical results from the Second Quarter 2019 monitoring event were compared to MTCA Method A or B cleanup levels, as applicable, for groundwater and are summarized below (Figure 4; Tables 2 and 3):

- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from injection wells IW50 and IW61 located on the Property; monitoring well MW13 located in the Boren Avenue North ROW; and monitoring well MW28 located in the Thomas Street ROW. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW15 in the Terry Avenue North ROW; MW26 in the Harrison Street ROW; and MW28 in the Thomas Street ROW. TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property or in MW13 located in the Boren Avenue North ROW, or MW01 located in the Harrison Street ROW.
- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, MW25, IW50, and IW61 located on the Property and monitoring well MW28 located in the Thomas Street ROW. Concentrations of cis-1,2-DCE were below the MTCA Method B cleanup level in groundwater samples collected from monitoring wells MW17, MW20, IW04, IW06, and IW91 located on the Property. Concentrations of cis-1,2-DCE in other off-Property monitoring wells were below the MTCA Method B cleanup level.
- Concentrations of VC exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 and injection wells IW04, IW50, and IW61 located on the Property; and monitoring well MW28 located in the Thomas Street ROW. Concentrations of VC in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.
- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This was likely due to the presence of EOS PRO solution in the samples, which originated from the April–May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DPRH and ORPH in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

October 2019 Supplemental Sampling

Laboratory analytical results from the October supplemental sampling of monitoring wells MW28 through MW33 were compared to applicable MTCA Method A or B cleanup levels for groundwater and are summarized below (Figure 4; Table 2):

- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from wells MW28 located in the Thomas Street ROW and MW29 located on the Seattle Times Site. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from wells MW28 located in the Thomas Street ROW and MW29 located on the Seattle Times Site. The concentrations of TCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from wells MW28 located in the Thomas Street ROW, and wells MW29 and MW30 located on the Seattle Times Site. The concentrations of cis-1,2-DCE in the remaining groundwater samples were below the laboratory reporting limit.
- Concentrations of VC exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from wells MW28 located in the Thomas Street ROW and MW29 located on the Seattle Times Site. The concentrations of VC in the remaining groundwater samples were below the laboratory reporting limit.
- Trans-1,2-DCE was not detected above the laboratory reporting limit in any of the analyzed groundwater samples.

Fourth Quarter 2019

Groundwater elevations measured on December 4, 2019, ranged from 13.19 feet NAVD88 (monitoring well MW18) to 16.89 feet NAVD88 (monitoring well MW15). Groundwater elevations were contoured using the water level measurements collected on December 4, 2019 (Figure 3; Table 1). The groundwater contours indicated that groundwater at the Site flowed generally to the southeast with a hydraulic gradient of 0.007 feet per foot.

Laboratory analytical results from the monitoring event were compared to applicable MTCA Method A or B cleanup levels for groundwater and are summarized below (Figure 4; Tables 2 and 3):

- Concentrations of PCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from injection well IW61 located on the Property, monitoring well MW13 located in the Boren Avenue North ROW, monitoring well MW28 located in the Thomas Street ROW, and monitoring well MW29 located on the Seattle Times Site. The concentrations of PCE in the remaining groundwater samples were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of TCE exceeding the MTCA Method A cleanup level were detected in the groundwater samples collected from monitoring wells MW04, MW07, and MW27 in the Boren Avenue North ROW; MW26 in the Harrison Street ROW; MW28 in the Thomas Street ROW; and

MW29 on the Seattle Times Site. TCE concentrations were not detected above the laboratory reporting limit and/or MTCA Method A cleanup level in the groundwater samples collected from any sampled wells on the Property; MW13 and MW31 located in the Boren Avenue North ROW; MW01 and MW32 located in the Harrison Street ROW; or MW30 located on the Seattle Times Site.

- Concentrations of cis-1,2-DCE exceeding the MTCA Method B cleanup level were detected in the groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, MW25, IW50, and IW61 located on the Property; monitoring well MW28 located in the Thomas Street ROW; and monitoring well MW29 located on the Seattle Times Site. Concentrations of cis-1,2-DCE in the remaining groundwater samples were below the laboratory reporting limit and/or the MTCA Method B cleanup level.
- Concentrations of VC exceeding the MTCA Method A cleanup level were detected in groundwater samples collected from monitoring wells MW18, MW19, MW21, MW22, MW23, MW24, and MW25 and injection wells IW04, IW50, and IW61 located on the Property; monitoring well MW28 located in the Thomas Street ROW; and monitoring wells MW29 and ONNI-MW-5 located on the Seattle Times Site. Concentrations of VC in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- Concentrations of trans-1,2-DCE in the groundwater samples collected from all sampled monitoring wells were below the laboratory reporting limit.
- DRPH and/or ORPH concentrations exceeding the applicable MTCA Method A cleanup levels were detected in groundwater samples collected from wells MW18, MW19, MW21, MW22, MW23, and MW24 located on the Property. These samples were flagged by the laboratory as having a chromatographic pattern that does not match the fuel standard used for quantification. This was likely due to the presence of EOS PRO solution in the samples, which originated from the April–May 2016 injection event. The reported concentrations are not considered reflective of actual groundwater conditions at the Property. Concentrations of DRPH and ORPH in groundwater samples collected from the remaining on-Property and off-Property monitoring wells were below the laboratory reporting limit and/or MTCA Method A cleanup level.
- GRPH concentrations were below the laboratory reporting limit and/or MTCA Method A cleanup level in groundwater samples collected from all sampled monitoring wells.
- Concentrations of BTEX constituents in groundwater samples collected from all sampled monitoring wells were below their respective laboratory reporting limits and/or MTCA Method A cleanup levels.

DATA QUALITY REVIEW

SoundEarth performed a QA/QC review of the analytical results, which included a review of accuracy and precision of the data supplied by the laboratory. In addition, the relative percent difference (RPD) was calculated for the field duplicate samples collected by SoundEarth from monitoring well MW25. RPDs for all detected analytes were below the acceptable limit of 25 percent. Detections of DRPH and/or ORPH in samples collected from wells MW18, MW19, MW20, MW21, MW22, MW23, MW24, and MW25 during the Second and Fourth Quarter sampling events were flagged by the laboratory as having a

chromatographic pattern that does not match the fuel standard used for quantification. This was due to the presence of EOS PRO solution (a food-grade oil/water emulsion) in the samples originating from the April–May 2016 injection event, and the reported concentrations should not be considered accurate. All other quality control criteria are acceptable for the groundwater samples; therefore, no action is required, and analytical results are usable to meet the project objectives. Copies of the laboratory analytical reports are provided in Attachment A.

STATISTICAL TREND ANALYSIS OF PLUME STABILITY

Using Ecology's *Guidance on Remediation of Petroleum-Contaminated Groundwater by Natural Attenuation* dated July 2005 (Module 2), SoundEarth evaluated the stability of the contaminated groundwater plume originating from the Property. Chlorinated solvent results (PCE, TCE, cis-1,2-DCE, and VC) for groundwater samples collected between May 2015 and December 2019 (four monitoring events; Table 2) were used to evaluate the stability of the plume. The data results from the plume stability analysis are presented in Attachment B.

The stability of the CVOC groundwater plume beneath and downgradient of the Property was evaluated to assess if the plume is expanding, shrinking, or has reached steady state (stable). A shrinking or stable plume indicates that the plume is attenuating as a result of the source removal at the Property and intrinsic biodegradation, as well as groundwater treatment implemented at the Property and in the adjacent ROWs. For the purposes of this report, stability of the CVOC plume originating at the Property is evaluated separately with respect to PCE/TCE and cis-1,2-DCE/VC.

Plume Stability—PCE and TCE

Results from the PCE and TCE stability analyses were evaluated in conjunction with the current footprint of the PCE and TCE components of the CVOC plume (Figure 5) originating at the Property. The trend analyses were performed on groundwater analytical results gathered from May of 2015 to December of 2019.

The concentrations of PCE and TCE are stable off-Property in Thomas and Boren ROWs (MW13 and MW28) and are decreasing or stable on the Property (IW61). These stable conditions suggest that the extent of PCE and TCE concentrations on-Property and in the Boren and Thomas ROWs has reached steady state. Steady state indicates that there is currently a balance between the PCE and TCE in the groundwater released from edible oil substrate (EOS) and desorbed from soil grains into the dissolved phase, and the mass removal of contaminants from the groundwater by natural attenuation processes in conjunction with the groundwater treatment.

Based on trend analysis of analytical results from 2015 to 2019 for injection well IW50 and monitoring well MW22 located on the Property, the PCE and TCE concentrations in these wells are decreasing. An evaluation of a subset of the results from 2018 to 2019 shows that the PCE and TCE components are expanding. The expansion of the PCE and TCE impacts to these wells is likely the result of loss of injectate (EOS), the release of PCE and TCE formerly sequestered in the EOS back into the groundwater, or the release of PCE and TCE from less permeable aquifer material into the dissolved phase. Concentrations of PCE and TCE in injection well IW50 and monitoring well MW22 are currently below MTCA cleanup levels.

Analysis of on-Property monitoring wells (MW18 to MW25) which at one time contained groundwater concentrations of PCE and TCE above MTCA cleanup levels show that the extent of PCE and TCE impacts have shrunk between 2015 and 2019.

Plume Stability—Cis-1,2-DCE and VC

Results from the cis-1,2-DCE and VC stability analyses were evaluated in conjunction with the current footprint of the cis-1,2-DCE and VC impacts in groundwater (Figure 6). In general, the concentrations of cis-1,2-DCE and/or VC on the Property north of well MW22 are increasing as expected since PCE and TCE are degrading in the groundwater to these daughter products under reducing conditions.

To the south of on-Property well MW22, the extent of cis-1,2-DCE and the VC in groundwater is generally stable (MW23, IW61, and MW28). These findings suggest a state of equilibrium has been reached between the degradation of PCE and mineralization of cis-1,2-DCE and VC to ethene and ethane. These conditions are evident in wells MW28, MW29, and MW30 where aerobic conditions present in the groundwater are conducive to the degradation of VC and mineralization of ethene and ethane. This conclusion will be verified over time as additional results are obtained from monitoring wells MW29 and MW30 located on the Seattle Times Site, which have been sampled twice since they were installed in September 2019.

CONCLUSIONS

Groundwater monitoring events completed at the Site in the Second and Fourth quarters of 2019 were conducted pursuant to Exhibit A (Scope of Work and Schedule) to PPCD No. 19-2-07344-6 SEA entered into by and between the Ecology and Ponte Gadea Seattle LLC. Under the approved PPCD sampling schedule for the monitoring well network, monitoring wells will continue to be sampled semiannually in the Second and Fourth quarters of 2020.

Results from analysis of plume stability indicate that the footprint of PCE and TCE in on-Property groundwater decreased considerably following implementation of the groundwater treatment in 2015. As predicted, and as a result of groundwater treatment, the footprint of the cis-1,2-DCE and VC has increased as a result of PCE and TCE degradation.

Groundwater conditions on the Property remain favorable for continued degradation of the CVOC plume. The stability of the off-Property CVOC plume in the Thomas Street ROW, as well as the sampling results obtained on the Seattle Times Site (as set forth in the draft Remedial Investigation Report submitted separately) establish that the southern extent of the Troy groundwater plume has been delineated.

CLOSING

SoundEarth appreciates the opportunity to work with you on this project. Please contact the undersigned at 206-306-1900 if you have any questions or require additional information.

Respectfully,

SoundEarth Strategies, Inc.

Clare Tochilin, LG
Associate Geologist

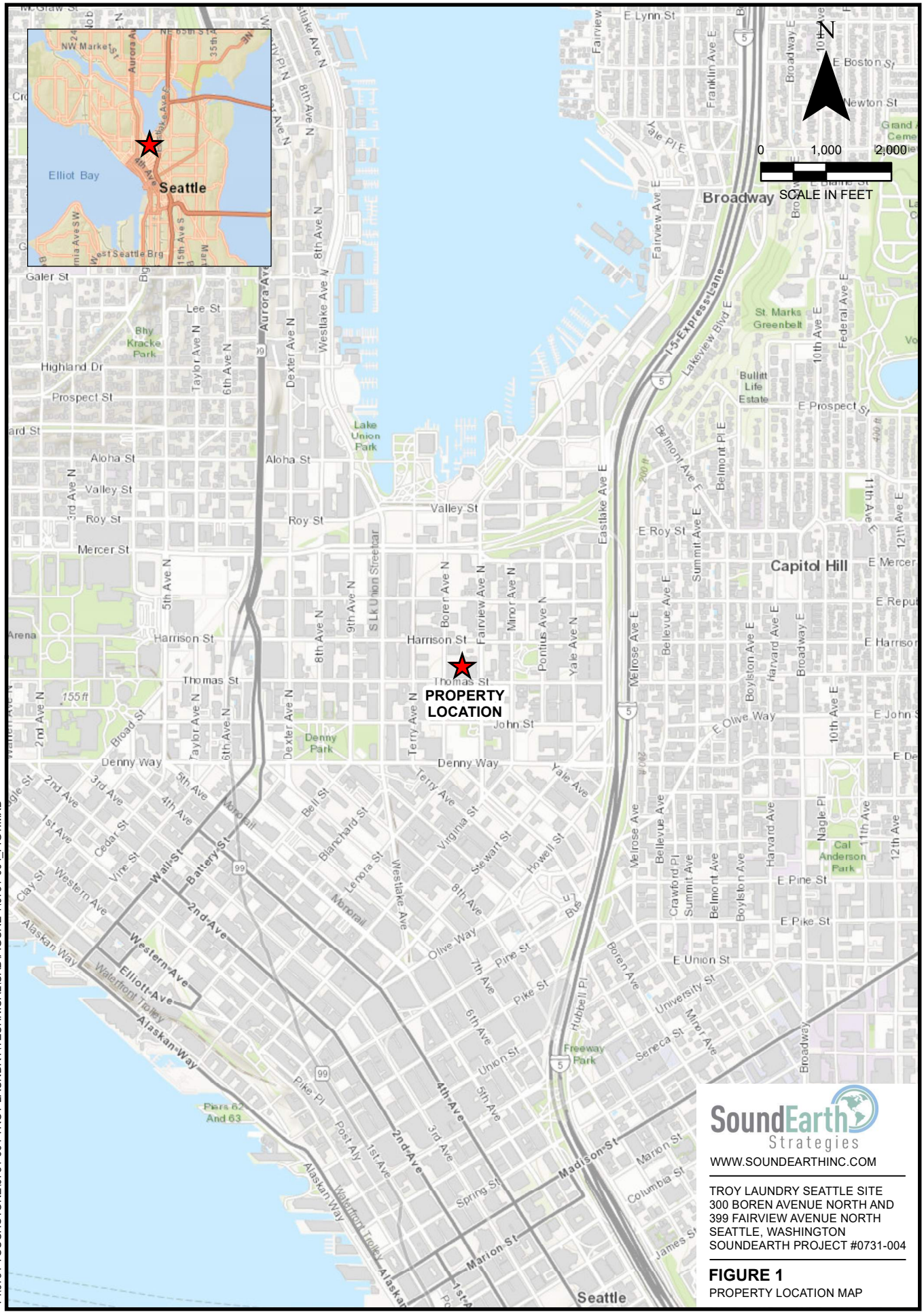
Logan Schumacher, LG
Project Geologist

Thomas Cammarata, LG, LHG
Senior Geochemist

Attachments:
Figure 1, Property Location Map
Figure 2, Groundwater Contour Map with Rose Diagram (June 13, 2019)
Figure 3, Groundwater Contour Map with Rose Diagram (December 4, 2019)
Figure 4, Groundwater Analytical Results for Chlorinated Volatile Organic Compounds
Figure 5, Extent of Troy Property PCE and TCE Concentrations in Groundwater – Post-Interim Remedial Action (Q4 2019)
Figure 6, Extent of Troy Property VC/cis-1,2-DCE Concentrations in Groundwater – Post-Interim Remedial Action (Q4 2019–Q1 2020)
Table 1, Summary of Groundwater Elevations
Table 2, Groundwater Analytical Results for CVOCs
Table 3, Groundwater Analytical Results for TPH
A, Laboratory Analytical Reports
- First Quarter 2019 Supplemental Sampling
  - *Friedman & Bruya, Inc. #903298*
- Second Quarter 2019
  - *Friedman & Bruya, Inc. #906291 amended*
  - *Friedman & Bruya, Inc. #906323*
  - *Friedman & Bruya, Inc. #906324*
  - *SiREM Lab, #S-5382*
  - *Fremont Analytical, #1906179*
- Fourth Quarter 2019 Supplemental Sampling
  - *Friedman & Bruya, Inc. #910180*
- Fourth Quarter 2019
  - *Friedman & Bruya, Inc. #912081*
  - *Friedman & Bruya, Inc. #912082 amended*
  - *Friedman & Bruya, Inc. #912134*
  - *Friedman & Bruya, Inc. #912135*

SiREM Lab, #S-5638
B, Plume Stability Analysis Results

FIGURES



SoundEarth Strategies

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TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE 1
PROPERTY LOCATION MAP

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\FIGURE 1\0731-004_FIG1.MXD

1/15/2020

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\2019\2019 GW REPORT\0731-004_2019GW_2019Q2-CM.DWG

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- REDEVELOPMENT EXCAVATION AREA
- MW20 — MONITORING WELL
- IW91 — INJECTION WELL CONVERTED TO MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- DECOMMISSIONED DEEP MONITORING WELL
- INJECTION WELL
- ANGLED INJECTION WELL
- MONUMENT AND HORIZONTAL PIPING FOR INJECTION WELL SCREEN ACCESS
- 0.50-FOOT INTERVAL GROUNDWATER CONTOUR
- (17.29') — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION (JUNE 13, 2019)

ALL CONTOUR CALCULATIONS ARE BASED ON THE WELL NETWORK AVAILABLE AT THE TIME OF DEPTH-TO-WATER MEASUREMENTS□ THEREFORE, EACH GRADIENT IS BASED ON A UNIQUE ARRAY OF MONITORING WELLS.

N

0 25 50

HARRISON STREET

FAIRVIEW AVENUE NORTH

TERRY AVENUE NORTH

BOREN AVENUE NORTH

THOMAS STREET

HISTORICAL BUILDING FACADE

BRAVEHORSE TAVERN

AMAZON BUILDING

SOUTH LAKE UNION HOTEL LLC

B□□□ MW□□ (16.31')

MW□6 (14.75')

B09/ MW02

B10/ MW03

B□□□ MW□□ (17.21')

MW□□ (14.79')

B□□□ MW□□ (16.75')

MW□□ (14.72')

MW□6 MW□□ (14.74')

MW□□ (14.68')

MW□□ (14.70')

B□□□ MW□□ (17.24')

MW□□ (14.63') B12/ MW05

MW□□ (14.74')

MW□□

B□□□ MW□□ (14.86')

MW□□ (14.63')

B□□□ MW□6 MW□□ (14.64')

B□□□ MW□□

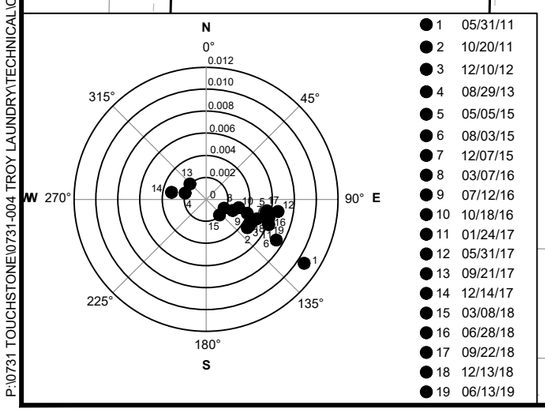
B□6 MW□□

IW□□ (14.59')

AIW01 AIW02 AIW03 AIW04 AIW05 AIW06 AIW07 AIW08 AIW09 AIW10 AIW11 AIW12

IW01 IW02 IW03 IW04 IW05 IW06 IW07 IW08 IW09 IW10 IW11 IW12 IW13 IW14 IW15 IW16 IW17 IW18 IW19 IW20 IW21 IW22 IW23 IW24 IW25 IW26 IW27 IW28 IW29 IW30 IW31 IW32 IW33 IW34 IW35 IW36 IW37 IW38 IW39 IW40 IW41 IW42 IW43 IW44 IW45 IW46 IW47 IW48 IW49 IW50 IW51 IW52 IW53 IW54 IW55 IW56 IW57 IW58 IW59 IW60 IW61 IW62 IW63 IW64 IW65 IW66 IW67 IW68 IW69 IW70 IW71 IW72 IW73 IW74 IW75 IW76 IW77 IW78 IW79 IW80 IW81 IW82 IW83 IW84 IW85 IW86 IW87 IW88 IW89 IW90

16.00 15.50 15.00 16.50 17.00 17.50 16.00 15.50 15.00



1	05/31/11	
2	10/20/11	
3	12/10/12	
4	08/29/13	
5	05/05/15	
6	08/03/15	
7	12/07/15	
8	03/07/16	
9	07/12/16	
10	10/18/16	
11	01/24/17	
12	05/31/17	
13	09/21/17	
14	12/14/17	
15	03/08/18	
16	06/28/18	
17	09/22/18	
18	12/13/18	
19	06/13/19	

SoundEarth Strategies

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TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE □
GROUNDWATER CONTOUR MAP
WITH ROSE DIAGRAM
(JUNE 13, 2019)

1/15/2020

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\2019\2019 GW REPORT\0731-004_2019GW_2019Q4-CM.DWG

TERRY AVENUE NORTH

HARRISON STREET

BOREN AVENUE NORTH

FAIRVIEW AVENUE NORTH

THOMAS STREET

BRAVEHORSE TAVERN

AMAZON BUILDING

SOUTH LAKE UNION HOTEL LLC

HISTORICAL BUILDING FACADE

B56/MW31 (16.59')

B58/MW33 (16.69')

B08/MW01 (15.89')

MW26 (14.77')

B09/MW02

B57/MW32 (15.75')

B10/MW03

B11/MW04 (16.78')

MW17 (13.68')

B15/MW07 (16.30')

MW18 (13.19')

B13/MW06

MW19 (14.36')

MW20 (14.18')

B28/MW10

MW24 (13.48')

B30/MW11

B26/MW08

MW27 (14.71')

MW25 (14.75')

MW21

B49/MW15 (16.89')

B37/MW13 (14.86')

MW22

MW23 (14.21')

B27/MW09

IW91

B38/MW14

B50/MW16

MW28 (14.70')

B55/MW30 (14.72')

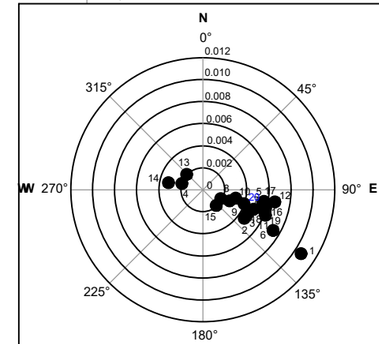
B54/MW29 (14.69')

16.50 16.00 15.50 15.00 14.50 14.00 13.50

N

0 30 60

APPROXIMATE SCALE IN FEET



1	05/31/11
2	10/20/11
3	12/10/12
4	08/29/13
5	05/05/15
6	08/03/15
7	12/07/15
8	03/07/16
9	07/12/16
10	10/18/16
11	01/24/17
12	05/31/17
13	09/21/17
14	12/14/17
15	03/08/18
16	06/28/18
17	09/22/18
18	12/13/18
19	06/13/19
20	12/04/19

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- REDEVELOPMENT EXCAVATION AREA
- MW20 — MONITORING WELL
- IW91 — INJECTION WELL CONVERTED TO MONITORING WELL
- DECOMMISSIONED/DESTROYED MONITORING WELL
- INJECTION WELL
- ANGLED INJECTION WELL
- MONUMENT AND HORIZONTAL PIPING FOR INJECTION WELL SCREEN ACCESS
- 0.50-FOOT INTERVAL GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- (14.70') — GROUNDWATER ELEVATION
- GROUNDWATER FLOW DIRECTION (DECEMBER 4, 2019)

SoundEarth Strategies

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TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE □
GROUNDWATER CONTOUR MAP WITH ROSE DIAGRAM (DECEMBER 4, 2019)

1/15/2020

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\20192019 GW REPORT\0731-004_2019GW_GW-RES.DWG

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
IW06	03/10/18	<1	<1	1.6	<1	<0.2
	06/30/18	<1	<1	<1	<1	<0.2
	12/15/18	1.0	<1	<1	<1	<0.2
	06/15/19	1.7	<1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW01	09/20/18	<1	<1	<1	<1	<0.2
	12/14/18	<1	1.1	<1	<1	<0.2
	06/14/19	<1	<1	<1	<1	<0.2
	12/05/19	<1	<1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW31	10/09/19	<1	1.8	<1	<1	<0.2
	12/05/19	<1	3.3	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW26	06/28/18	<1	18	<1	<1	<0.2
	09/20/18	<1	18	<1	<1	<0.2
	12/14/18	<1	20	<1	<1	<0.2
	06/14/19	<1	20	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW32	10/09/19	<1	<1	<1	<1	<0.2
	12/05/19	<1	<1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
IW04	09/22/18	<1	<1	<1	<1	<0.2
	12/15/18	<1	<1	1.9	<1	1.6
	06/15/19	<1	<1	1.7	<1	1.0
	12/07/19	<1	<1	1.4	<1	1.1

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW33	10/09/19	<1	<1	<1	<1	<0.2
	12/05/19	<1	<1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW04	09/20/18	<1	9.4	<1	<1	<0.2
	12/14/18	<1	10	<1	<1	<0.2
	06/14/19	<1	11	<1	<1	<0.2
	12/05/19	<1	11	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW17	09/22/18	<1	2.7	2.0	<1	<0.2
	12/15/18	<1	2.9	2.2	<1	<0.2
	06/15/19	<1	3.4	2.2	<1	<0.2
	12/07/19	<1	3.9	2.2	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW24	09/22/18	<1	<1	35	<1	0.37
	12/15/18	<1	<1	43	<1	0.51
	06/15/19	<1	<1	84	<1	1.0
	12/07/19	<1	<1	83	<1	0.94

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW18	09/22/18	<1	<1	21	<1	0.42
	12/15/18	<1	<1	24	<1	0.49
	06/15/19	<1	<1	28	<1	0.44
	12/07/19	<1	<1	28	<1	0.55

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW20	09/22/18	<1	<1	5.3	<1	<0.2
	12/15/18	<1	<1	4.4	<1	<0.2
	06/15/19	<1	<1	3.8	<1	<0.2
	12/07/19	<1	<1	3.0	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW07	09/20/18	2.8	6.0	<1	<1	<0.2
	12/14/18	3.3	6.7	<1	<1	<0.2
	06/14/19	3.9	5.9	<1	<1	<0.2
	12/05/19	3.3	5.9	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
IW50	09/22/18	<1	<1	5.1	<1	2.9
	12/15/18	1.6	<1	15	<1	4.5
	06/15/19	5.2	2.0	54	<1	7.1
	12/07/19	4.5	1.6	55	<1	7.4

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW19	06/30/18	<1	<1	12	<1	0.96
	09/22/18	<1	<1	16	<1	0.86
	06/15/19	<1	<1	27	<1	0.79
	12/07/19	<1	<1	35	<1	0.98

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW21	09/22/18	<1	<1	6.9	<1	0.30
	12/15/18	<1	<1	16	<1	0.96
	06/15/19	<1	<1	29	<1	1.1
	12/07/19	<1	<1	34	<1	1.3

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW27	09/20/18	<1	21	3.7	<1	<0.2
	12/14/18	<1	17	4.3	<1	<0.2
	06/14/19	<1	14	2.3	<1	<0.2
	12/05/19	<1	15	2.2	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW22	09/22/18	<1	<1	33	<1	0.90
	12/15/18	<1	<1	37	<1	1.2
	06/15/19	1.1	1.1	49	<1	1.0
	12/07/19	1.3	1.3	48	<1	1.0

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW25	09/22/18	<1	<1	37	<1	0.46
	12/15/18	<1	<1	40	<1	0.60
	06/15/19	<1	<1	45	<1	0.54
	12/07/19	<1	<1	40	<1	0.63

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
IW61	09/22/18	13	2.1	63	<1	1.8
	12/15/18	15	2.1	58	<1	2.0
	06/15/19	13	2.4	71	<1	2.9
	12/07/19	6.8	1.7	65	<1	4.0

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW15	09/20/18	<1	6.9	<1	<1	<0.2
	12/14/18	<1	7.0	<1	<1	<0.2
	06/13/19	<1	6.8	<1	<1	<0.2
	12/05/19	<1	4.9	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW13	09/20/18	6.5	1.3	<1	<1	<0.2
	12/14/18	7.8	1.4	<1	<1	<0.2
	06/14/19	7.0	1.1	<1	<1	<0.2
	12/05/19	7.7	1.1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW23	09/22/18	<1	<1	16	<1	0.53
	12/15/18	<1	<1	17	<1	<0.2
	06/15/19	<1	<1	25	<1	0.72
	12/07/19	<1	<1	38	<1	0.89

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW16	09/22/17	5.4	5.2	78	<1	0.40
	12/29/17	7.2	6.4	150	<1	0.89
	03/09/18	7.3	5.5	80	<1	0.35
	Well Destroyed 2018					

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW28	03/15/19	7.7	4.7	67	<1	0.47
	06/13/19	9.0	5.7	80	<1	0.35
	10/09/19	8.7	6.1	72	<1	0.31
	12/04/19	8.4	4.9	52	<1	0.27

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
IW91	09/22/18	<1	<1	<1	<1	<0.2
	12/15/18	<1	<1	<1	<1	<0.2
	06/15/19	<1	<1	<1	<1	<0.2
	12/07/19	<1	<1	<1	<1	<0.2

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW29	10/08/19	8.6	9.4	52	<1	0.64
	12/04/19	16	12	26	<1	0.40

Sample Location	Sample Date	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MW30	10/08/19	<1	3.6	24	<1	<0.2
	12/04/19	<1	2.0	11	<1	<0.2

B56/MW31
B58/MW33
B08/MW01
MW26
B09/MW02
B57/MW32
HARRISON STREET
B11/MW04
MW17
MW18
B15/MW07
AMAZON BUILDING
MW19
BOREN AVENUE NORTH
MW20
MW24
B30/MW11
MW27
B12/MW05
MW25
MW21
B49/MW15
B37/MW13
MW22
MW23
THOMAS STREET
B50/MW16
MW28
B55/MW30
B54/MW29
IW91
B38/MW14

N

0 30 60

APPROXIMATE SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- REDEVELOPMENT EXCAVATION AREA
- MW20 — MONITORING WELL
- IW91 — INJECTION WELL CONVERTED TO MONITORING WELL
- DECOMMISSIONED/ DESTROYED MONITORING WELL
- INJECTION WELL
- ANGLED INJECTION WELL
- MONUMENT AND HORIZONTAL PIPING FOR INJECTION WELL SCREEN ACCESS
- DCE — DICHLOROETHENE
- PCE — TETRACHLOROETHENE
- TCE — TRICHLOROETHENE
- MTCA — WASHINGTON STATE MODEL TOXICS CONTROL ACT
- □ — NOT DETECTED AT A CONCENTRATION EXCEEDING LABORATORY REPORTING LIMIT
- RED — DENOTES CONCENTRATIONS EXCEEDING THE MTCA METHOD CLEANUP LEVEL FOR GROUNDWATER

	Analytical Results (micrograms per liter) PCE	TCE	cis-1-2-DCE	trans-1-2-DCE	Vinyl Chloride
MTCA Method A	5	5	16	160	0.2

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TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND 399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE □

GROUNDWATER ANALYTICAL RESULTS FOR CHLORINATED VOLATILE ORGANIC COMPOUNDS

4/1/2020

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\2019\2019 GW REPORT\0731-004_2019GW_PCE-POST.DWG

B56/MW31

B58/MW33

B08/MW01

MW26

B09/ MW02

HARRISON STREET

B57/MW32

B10/ MW03

HISTORICAL BUILDING FACADE

IW06

IW04

TERRY AVENUE NORTH

B11/MW04

MW17

B15/MW07

MW18

BRAVEHORSE TAVERN

AMAZON BUILDING

BOREN AVENUE NORTH

B31/ MW12

B13/ MW06

MW19

MW20

B28/ MW10

MW24

B30/ MW11

B26/ MW08

IW50

MW21

MW27

MW25

B12/ MW05

B49/MW15

SOUTH LAKE UNION HOTEL LLC

MW22

IW61

B37/MW13

B27/ MW09

MW23

IW91

FAIRVIEW AVENUE NORTH

HISTORICAL BUILDING FACADE

B50/ MW16

MW28

B38/ MW14

THOMAS STREET

B54/MW29

B55/MW30

ONNI MW-4

ONNI MW-5

N

0 40 80

APPROXIMATE SCALE IN FEET

LEGEND

	PROPERTY BOUNDARY
	PARCEL BOUNDARY
	REDEVELOPMENT EXCAVATION AREA
MW20	MONITORING WELL
MW-5	MONITORING WELL (ENVIRONMENTAL PARTNERS INC)
IW91	INJECTION WELL CONVERTED TO MONITORING WELL
IW61	INJECTION WELL (SAMPLED)
	DECOMMISSIONED/DESTROYED MONITORING WELL
	APPROXIMATE EXTENTS OF POST-TREATMENT PCE AND TCE CONCENTRATIONS ABOVE MTCA CLEANUP LEVEL ORIGINATING FROM THE TROY PROPERTY
	DENOTES PCE CONCENTRATION EXCEEDS APPLICABLE MTCA CLEANUP LEVEL
	DENOTES TCE CONCENTRATION EXCEEDS APPLICABLE MTCA CLEANUP LEVEL
CVOC	CHLORINATED VOLATILE ORGANIC COMPOUND
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT

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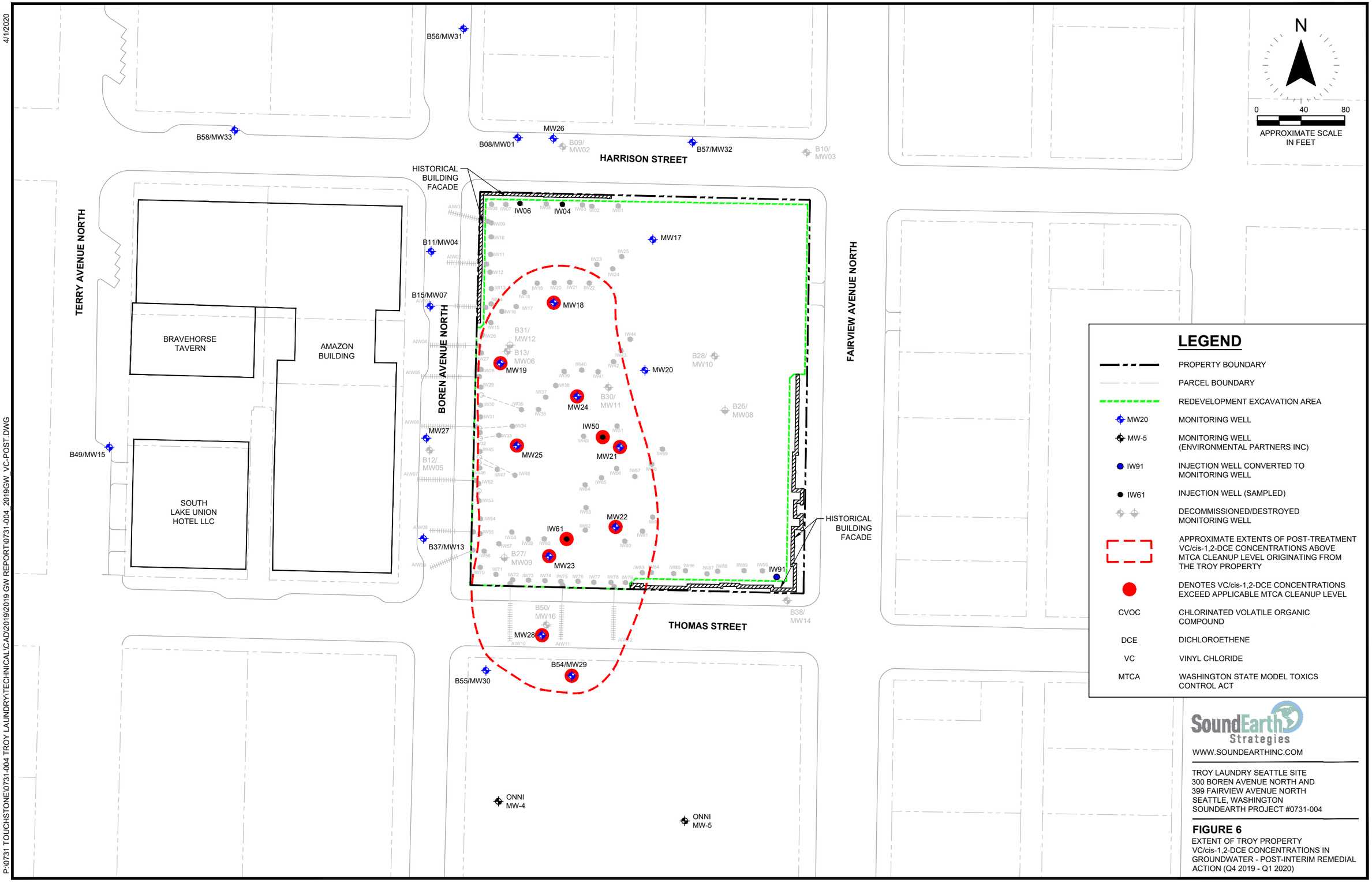
TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE 5

EXTENT OF TROY PROPERTY PCE AND TCE CONCENTRATIONS IN GROUNDWATER - POST-INTERIM REMEDIAL ACTION (Q4 2019)

4/1/2020

P:\0731 TOUCHSTONE\0731-004 TROY LAUNDRY\TECHNICAL\CAD\2019\2019 GW REPORT\0731-004_2019GW_VC-POST.DWG



LEGEND

	PROPERTY BOUNDARY
	PARCEL BOUNDARY
	REDEVELOPMENT EXCAVATION AREA
MW20	MONITORING WELL
MW-5	MONITORING WELL (ENVIRONMENTAL PARTNERS INC)
IW91	INJECTION WELL CONVERTED TO MONITORING WELL
IW61	INJECTION WELL (SAMPLED)
	DECOMMISSIONED/DESTROYED MONITORING WELL
	APPROXIMATE EXTENTS OF POST-TREATMENT VC/cis-1,2-DCE CONCENTRATIONS ABOVE MTCA CLEANUP LEVEL ORIGINATING FROM THE TROY PROPERTY
	DENOTES VC/cis-1,2-DCE CONCENTRATIONS EXCEED APPLICABLE MTCA CLEANUP LEVEL
CVOC	CHLORINATED VOLATILE ORGANIC COMPOUND
DCE	DICHLOROETHENE
VC	VINYL CHLORIDE
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT

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TROY LAUNDRY SEATTLE SITE
300 BOREN AVENUE NORTH AND
399 FAIRVIEW AVENUE NORTH
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0731-004

FIGURE 6

EXTENT OF TROY PROPERTY VC/cis-1,2-DCE CONCENTRATIONS IN GROUNDWATER - POST-INTERIM REMEDIAL ACTION (Q4 2019 - Q1 2020)

TABLES

Table 1
Summary of Groundwater Elevations
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[(1)] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
Troy Laundry Property								
MW06	74.78	60	75	15	0	05/31/11	58.70	16.08
						10/20/11	58.91	15.87
						12/13/12	58.71	16.07
						08/29/13	60.30	14.48
	DECOMMISSIONED 2013							
MW08	92.88	105	110	-12	-17	10/20/11	77.18	15.70
						08/29/13	78.10	14.78
	DECOMMISSIONED 2013							
MW09	92.92	105	110	-12	-17	10/20/11	77.24	15.68
						08/29/13	78.51	14.41
	DECOMMISSIONED 2013							
MW10	92.73	75	90	18	3	10/20/11	77.14	15.59
						12/13/12	77.01	15.72
						08/29/13	78.28	14.45
	DECOMMISSIONED 2013							
MW11	88.23	68	83	20	5	10/20/11	72.43	15.80
						12/13/12	72.29	15.94
						08/29/13	73.78	14.45
	DECOMMISSIONED 2013							
MW12	74.44	95	100	-21	-26	10/20/11	58.71	15.73
						08/29/13	59.99	14.45
	DECOMMISSIONED 2013							
MW17	35.72	22	37	14	-1	05/05/15	25.26	10.46
						08/03/15	24.82	10.90
						12/07/15	25.49	10.23
						03/07/16	24.98	10.74
						07/12/16	24.61	11.11
						10/18/16	23.14	12.58
						01/24/17	20.84	14.88
						05/31/17	22.75	12.97
						09/21/17	25.73	9.99
						12/14/17	25.14	10.58
						03/08/18	23.04	12.68
						06/28/18	22.00	13.72
						09/19/18	21.64	14.08
						12/13/18	21.42	14.30
						06/13/19	20.93	14.79
						10/09/19	21.30	14.42
						12/04/19	22.04	13.68

SoundEarth Strategies

Table 1
Summary of Groundwater Elevations
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[1] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
MW18	35.34	35	55	0	-20	05/05/15	24.92	10.42
						08/03/15	24.49	10.85
						12/07/15	25.21	10.13
						03/07/16	24.64	10.70
						07/12/16	24.23	11.11
						10/18/16	22.81	12.53
						01/24/17	20.98	14.36
						05/31/17	22.49	12.85
						09/21/17	25.36	9.98
						12/14/17	24.70	10.64
						03/08/18	22.60	12.74
						06/28/18	21.70	13.64
						09/19/18	21.34	14.00
						12/13/18	21.12	14.22
						06/13/19	20.62	14.72
						10/09/19	20.50	14.84
						12/04/19	22.15	13.19
MW19	37.69	35	55	3	-17	05/05/15	27.24	10.45
						08/03/15	26.82	10.87
						12/07/15	27.51	10.18
						03/07/16	26.97	10.72
						07/12/16	26.57	11.12
						10/18/16	25.12	12.57
						01/24/17	22.97	14.72
						05/31/17	24.74	12.95
						09/21/17	27.60	10.09
						12/14/17	26.97	10.72
						03/08/18	24.89	12.80
						06/28/18	24.00	13.69
						09/19/18	23.65	14.04
						12/13/18	25.41	12.28
						06/13/19	22.95	14.74
						10/09/19	27.60	10.09
						12/04/19	23.33	14.36
MW20	35.63	35	55	1	-19	05/05/15	25.24	10.39
						08/03/15	24.44	11.19
						12/07/15	25.50	10.13
						03/07/16	24.94	10.69
						07/12/16	24.62	11.01
						10/18/16	23.13	12.50
						01/24/17	21.32	14.31
						05/31/17	22.70	12.93
						09/21/17	25.53	10.10
						12/14/17	24.91	10.72
						03/08/18	22.89	12.74
						06/28/18	22.01	13.62
						09/19/18	21.67	13.96
						12/13/18	21.43	14.20
						06/13/19	20.95	14.68
						10/09/19	24.25	11.38
						12/04/19	21.45	14.18

SoundEarth Strategies

Table 1
Summary of Groundwater Elevations
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[(1)] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
MW21	35.58	35	55	1	-19	05/05/15	25.21	10.37
						08/03/15	24.82	10.76
						12/07/15	25.49	10.09
						03/07/16	24.90	10.68
						07/12/16	24.56	11.02
						10/18/16	23.00	12.58
						01/24/17	21.54	14.04
						05/31/17	23.37	12.21
						09/21/17	25.96	9.62
						12/14/17	25.20	10.38
						03/08/18	24.10	11.48
						06/28/18	22.89	12.69
						09/19/18	INACCESSIBLE	
						12/13/18	22.59	12.99
						06/13/19	23.70	11.88
						10/09/19	26.52	9.06
						12/04/19	20.50	15.08
MW22	35.47	35	55	0	-20	05/05/15	25.14	10.33
						08/03/15	24.75	10.72
						12/07/15	25.41	10.06
						03/07/16	24.86	10.61
						07/12/16	24.52	10.95
						10/18/16	23.05	12.42
						01/24/17	21.68	13.79
						05/31/17	23.45	12.02
						09/21/17	26.20	9.27
						12/14/17	25.60	9.87
						03/08/18	23.65	11.82
						06/28/18	23.30	12.17
						09/19/18	INACCESSIBLE	
						12/13/18	21.62	13.85
						06/13/19	--	--
						10/09/19	20.73	14.74
						12/04/19	20.18	15.29
MW23	35.43	36	56	-1	-21	05/05/15	25.08	10.35
						08/03/15	24.72	10.71
						12/07/15	25.34	10.09
						03/07/16	24.77	10.66
						07/12/16	24.54	10.89
						10/18/16	22.98	12.45
						01/24/17	21.06	14.37
						05/31/17	22.41	13.02
						09/21/17	25.11	10.32
						12/14/17	24.65	10.78
						03/08/18	22.69	12.74
						06/28/18	21.03	14.40
						09/19/18	21.50	13.93
						12/13/18	21.22	14.21
						06/13/19	20.80	14.63
						10/09/19	22.03	13.40
						12/04/19	21.22	14.21

Table 1
Summary of Groundwater Elevations
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300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[1] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
MW24	34.88	35	55	0	-20	05/05/15	24.47	10.41
						08/03/15	24.06	10.82
						12/07/15	24.72	10.16
						03/07/16	24.12	10.76
						07/12/16	23.76	11.12
						10/18/16	22.19	12.69
						01/24/17	19.95	14.93
						05/31/17	23.29	11.59
						09/21/17	INACCESSIBLE	
						12/14/17	24.22	10.66
						03/08/18	22.10	12.78
						06/28/18	21.98	12.90
						09/19/18	20.81	14.07
						12/13/18	20.65	14.23
						06/13/19	20.18	14.70
						10/09/19	21.65	13.23
						12/04/19	21.40	13.48
MW25	41.38	35.5	55.5	6	-14	05/05/15	30.85	10.53
						08/03/15	30.60	10.78
						12/07/15	31.30	10.08
						03/07/16	30.71	10.67
						07/12/16	30.44	10.94
						10/18/16	28.95	12.43
						01/24/17	27.07	14.31
						05/31/17	28.24	13.14
						09/21/17	31.09	10.29
						12/14/17	30.52	10.86
						03/08/18	28.54	12.84
						06/28/18	27.69	13.69
						09/19/18	27.32	14.06
						12/13/18	27.12	14.26
						06/13/19	26.64	14.74
						10/09/19	27.79	13.59
						12/04/19	26.63	14.75
IW91	35.82	20	55	16	-19	05/05/15	25.56	10.26
						08/03/15	25.19	10.63
						12/07/15	25.84	9.98
						03/07/16	25.24	10.58
						07/12/16	24.90	10.92
						10/18/16	23.41	12.41
						01/24/17	21.61	14.21
						05/31/17	22.79	13.03
						09/21/17	25.42	10.40
						12/14/17	24.96	10.86
						03/08/18	23.08	12.74
						06/28/18	22.30	13.52
						09/19/18	21.95	13.87
						12/13/18	21.69	14.13
						06/13/19	21.23	14.59
						10/09/19	23.90	11.92
						12/04/19	21.11	14.71

Table 1
Summary of Groundwater Elevations
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[1] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
Boren Avenue North								
MW04	70.69	50	65	21	6	05/27/11	52.22	18.47
						10/20/11	52.82	17.87
						12/10/12	52.88	17.81
						08/29/13	57.25	13.44
	70.82					05/05/15	58.22	12.60
						08/03/15	56.87	13.95
						12/07/15	58.82	12.00
						03/07/16	59.25	11.57
						07/12/16	58.49	12.33
						10/18/16	57.02	13.80
						01/24/17	54.06	16.76
						05/31/17	55.59	15.23
						09/21/17	62.08	8.74
						12/14/17	62.03	8.79
						03/08/18	57.70	13.12
						06/28/18	54.94	15.88
						09/19/18	54.38	16.44
						12/13/18	54.26	16.56
						06/13/19	53.61	17.21
						10/09/19	55.40	15.42
						12/04/19	54.04	16.78
MW05	84.04	65	80	19	4	05/27/11	67.40	16.64
						10/20/11	67.91	16.13
						12/10/12	68.54	15.50
						08/29/13	69.72	14.32
						05/05/15	INACCESSIBLE	
						08/03/15	INACCESSIBLE	
	DECOMMISSIONED 2015							
MW07	74.55	55	70	20	5	05/31/11	56.33	18.22
						10/20/11	56.87	17.68
						12/10/12	56.96	17.59
						08/29/13	60.95	13.60
	74.68					05/05/15	62.69	11.99
						08/03/15	61.67	13.01
						12/07/15	63.19	11.49
						03/07/16	63.22	11.46
						07/12/16	62.82	11.86
						10/18/16	61.26	13.42
						01/24/17	58.41	16.27
						05/31/17	59.90	14.78
						09/21/17	65.17	9.51
						12/14/17	INACCESSIBLE	
						03/08/18	61.76	12.92
						06/28/18	59.45	15.23
						09/19/18	59.07	15.61
						12/13/18	58.87	15.81
						06/13/19	57.93	16.75
						10/09/19	61.02	13.66
						12/04/19	58.38	16.30

SoundEarth Strategies

Table 1
Summary of Groundwater Elevations
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Well	TOC Elevation[1] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
MW13	90.66	70	85	21	-15	10/20/11	74.69	15.97
						12/10/12	75.38	15.28
						08/29/13	76.23	14.43
	90.86					05/05/15	INACCESSIBLE	
						08/03/15	80.07	10.79
						12/07/15	80.73	10.13
						03/07/16	80.07	10.79
						07/12/16	80.03	10.83
						10/18/16	78.16	12.70
						01/24/17	75.56	15.30
						05/31/17	77.40	13.46
						09/21/17	80.46	10.40
						12/14/17	80.19	10.67
						03/08/18	78.13	12.73
						06/28/18	77.01	13.85
						09/19/18	76.68	14.18
						12/13/18	76.52	14.34
						06/13/19	76.00	14.86
						10/09/19	81.45	9.41
						12/04/19	76.00	14.86
MW27	83.82	90	105	-6	-21	12/07/15	73.86	9.96
						03/07/16	73.23	10.59
						07/12/16	73.01	10.81
						10/18/16	71.38	12.44
						01/24/17	69.57	14.25
						05/31/17	70.89	12.93
						09/21/17	73.87	9.95
						12/14/17	73.25	10.57
						03/08/18	71.10	12.72
						06/28/18	70.20	13.62
						09/19/18	69.85	13.97
						12/13/18	69.69	14.13
						06/13/19	69.19	14.63
						10/09/19	70.30	13.52
						12/04/19	69.11	14.71
MW31	60.75	40	60	21	1	10/09/19	46.49	14.26
						12/04/19	44.16	16.59
Terry Avenue North								
MW15	58.79	41	56	18	3	12/10/12	40.78	18.01
						08/29/13	45.37	13.42
	58.89					05/05/15	45.86	13.03
						08/03/15	44.81	14.08
						12/07/15	47.08	11.81
						03/07/16	47.58	11.31
						07/12/16	46.73	12.16
						10/18/16	44.97	13.92
						01/24/17	42.05	16.84
						05/31/17	43.08	15.81
						09/21/17	49.62	9.27
						12/14/17	49.92	8.97
						03/08/18	45.80	13.09
						06/28/18	42.95	15.94
						09/19/18	42.35	16.54
						12/13/18	42.26	16.63
						06/13/19	41.65	17.24
						10/09/19	41.80	17.09
						12/04/19	42.00	16.89

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Thomas Street								
MW14	104.40	90	105	14	-1	10/20/11	88.81	15.59
						12/13/12	88.66	15.74
						08/29/13	89.99	14.41
	DECOMMISSIONED 2013							
MW16	99.02	91	106	8	-7	12/10/12	83.47	15.55
						08/29/13	84.59	14.43
	99.18					05/05/15	88.87	10.31
						08/03/15	88.53	10.65
						12/07/15	89.15	10.03
						03/07/16	88.54	10.64
						07/12/16	88.41	10.77
						10/18/16	86.74	12.44
						01/24/17	84.71	14.47
						05/31/17	86.04	13.14
						09/21/17	88.85	10.33
						12/14/17	88.43	10.75
						03/08/18	86.51	12.67
	WELL DAMAGED 2018							
MW28	99.18	90	105	9	-6	06/13/19	84.54	14.64
						10/08/19	84.75	14.43
						12/04/19	84.48	14.70
Fairview Avenue North								
MW-C	107.75	85	100	23	8	08/29/13	93.32	14.43
						05/05/15	97.64	10.11
Harrison Street								
MW01	68.68	45	60	24	9	05/25/11	50.59	18.09
						10/20/11	51.03	17.65
						12/10/12	51.24	17.44
						08/29/13	54.35	14.33
	68.82					05/05/15	58.11	10.71
						08/03/15	INACCESSIBLE	
						12/07/15	58.60	10.22
						03/07/16	57.69	11.13
	68.65					07/12/16	57.42	11.23
						10/18/16	55.65	13.00
						01/24/17	52.27	16.38
						05/31/17	54.69	13.96
						09/21/17	58.91	9.74
						12/14/17	58.14	10.51
						03/08/18	55.84	12.81
						06/28/18	54.20	14.45
						09/19/18	53.93	14.72
						12/13/18	53.05	15.60
						06/13/19	52.34	16.31
						10/09/19	56.65	12.00
						12/04/19	52.76	15.89
MW02	70.92	55	70	16	1	05/25/11	54.84	16.08
						10/20/11	55.08	15.84
						12/10/12	55.27	15.65
						08/29/13	56.48	14.44
						05/05/15	INACCESSIBLE	
						08/03/15	INACCESSIBLE	
	DECOMMISSIONED 2015							

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Seattle, Washington

Well	TOC Elevation[1] (feet)	Depth to Top of Well Screen (feet approximate)	Depth to Bottom of Well Screen (feet approximate)	Top of Well Screen Elevation (feet NAVD88 approximate)	Bottom of Well Screen Elevation (feet NAVD88 approximate)	Date	Depth to Groundwater (feet below TOC)	Groundwater Elevation (feet NAVD88)
MW03	84.65	65	80	20	5	05/27/11	68.75	15.90
						10/20/11	68.97	15.68
						12/10/12	69.21	15.44
						08/29/13	70.21	14.44
						05/05/15	INACCESSIBLE	
						08/03/15	INACCESSIBLE	
	DECOMMISSIONED 2015							
MW26	70.57	75	90	-4	-19	12/07/15	60.42	10.15
						03/07/16	59.82	10.75
						07/12/16	59.52	11.05
						10/18/16	58.10	12.47
						01/24/17	56.10	14.47
						05/31/17	57.79	12.78
						09/21/17	60.94	9.63
						12/14/17	60.11	10.46
						03/08/18	57.79	12.78
						06/28/18	56.83	13.74
						09/19/18	56.50	14.07
						12/13/18	56.34	14.23
						06/13/19	55.82	14.75
						10/09/19	57.28	13.29
						12/04/09	55.80	14.77
MW32	78.38	60	75	18	3	10/09/19	65.80	12.58
						12/04/19	62.63	15.75
MW33	56.62	31	51	26	6	10/09/19	40.30	16.32
						12/04/19	39.93	16.69
SMW01	49.45	30	40	19	9	08/29/13	36.78	12.67
SMW02	49.26	30	40	19	9	08/29/13	36.67	12.59
SMW06	48.63	30	40	19	9	08/29/13	36.39	12.24
SMW08	49.30	30	40	19	9	08/29/13	36.69	12.61
Westlake Avenue North								
SMW09	48.25	30	40	18	8	08/29/13	35.84	12.41
South-Adjoining Property								
MW29	101.72	82	102	20	0	10/09/19	86.91	14.81
						12/04/19	87.03	14.69
MW30	101.97	84	104	18	-2	10/09/19	87.95	14.02
						12/04/19	87.25	14.72
North-Adjoining Property								
SLU-MW01[2]	53.43	35	45	18	8	08/29/13	40.00	13.43
	DECOMMISSIONED 2013							
SLU-MW02[2]	52.76	30	40	23	13	08/29/13	Dry	--
	DECOMMISSIONED 2013							

NOTES:

[1]TOC elevations surveyed relative to NAVD88.

[2]Groundwater elevation data compiled from reports on file at the Washington State Department of Ecology.

-- = not analyzed, measured, or calculated

NAVD88 = North American Vertical Datum of 1988

TOC = top of casing

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
Troy Laundry Property								
MW06	MW06-20110531	05/31/11	SoundEarth	3.1	8.2	150[ve]	<1	0.76
	MW06-20111012	10/12/11	SoundEarth	3.6	11	120	<1	0.76
	MW06-20130909	09/09/13	SoundEarth	3.8	4.5	150	<1	0.93
	DECOMMISSIONED 2013							
MW08	MW08-20111013	10/13/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW08-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2013							
MW09	MW09-20111013	10/13/11	SoundEarth	<1	16	22	<1	<0.2
	MW09-20130910	09/10/13	SoundEarth	1.6	15	2.0	<1	<0.2
	DECOMMISSIONED 2013							
MW10	MW10-20111012	10/12/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW10-20130909	09/09/13	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2013							
MW11	MW11-20111013	10/13/11	SoundEarth	21	2.6	5.6	<1	<0.2
	MW11-20130909	09/09/13	SoundEarth	39	3.8	3.6	<1	<0.2
	DECOMMISSIONED 2013							
MW12	MW12-20111017	10/17/11	SoundEarth	<1	19	1.3	<1	<0.2
	MW12-20130909	09/09/13	SoundEarth	<1	20	<1	<1	<0.2
	DECOMMISSIONED 2013							
MW17	MW17-20150506	05/06/15	SoundEarth	<1	2.2	<1	<1	<0.2
	MW17-20150804	08/07/15	SoundEarth	<1	1.5	<1	<1	<0.2
	MW17-20151207	12/07/15	SoundEarth	<1	1.5	<1	<1	<0.2
	MW17-20160308	03/08/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW17-20160714	07/14/16	SoundEarth	<1	1.2	<1	<1	<0.2
	MW17-20161020	10/20/16	SoundEarth	<1	2.1	<1	<1	<0.2
	MW17-20170126	01/26/17	SoundEarth	<1	1.9	<1	<1	<0.2
	MW17-20170601	06/01/17	SoundEarth	<1	2.5	<1	<1	<0.2
	MW17-20170923	09/23/17	SoundEarth	<1	2.1	1.2	<1	<0.2
	MW17-20171216	12/16/17	SoundEarth	<1	2.5	1.7	<1	<0.2
	MW17-20180310	03/10/18	SoundEarth	<1	2.6	1.5	<1	<0.2
	MW17-20180630	06/30/18	SoundEarth	<1	2.8	2.2	<1	<0.2
	MW17-20180922	09/22/18	SoundEarth	<1	2.7	2.0	<1	<0.2
	MW17-20181215	12/15/18	SoundEarth	<1	2.9	2.2	<1	<0.2
	MW17-20190615	06/15/19	SoundEarth	<1	3.4	2.2	<1	<0.2
	MW17-20191207	12/07/19	SoundEarth	<1	3.9	2.2	<1	<0.2
MW18	MW18-20150506	05/06/15	SoundEarth	<1	46	5.2	<1	<0.2
	MW18-20150803	08/03/15	SoundEarth	<1	51	4.6	<1	<0.2
	MW18-20151208	12/08/15	SoundEarth	<1	51	9.9	<1	<0.2
	MW18-20160308	03/08/16	SoundEarth	<1	44	8.1	<1	<0.2
	MW18-20160714	07/14/16	SoundEarth	<1	3.3	1.7	<1	<0.2
	MW18-20161020	10/20/16	SoundEarth	<1	6.5	4.0	<1	<0.2
	MW18-20170126	01/26/17	SoundEarth	<1	7.7	14	<1	0.25
	MW18-20170601	06/01/17	SoundEarth	<1	3.3	14	<1	0.31
	MW18-20170923	09/23/17	SoundEarth	<1	<1	22	<1	0.38
	MW18-20171216	12/16/17	SoundEarth	<1	<1	22	<1	0.24
	MW18-20180310	03/10/18	SoundEarth	<1	<1	27	<1	0.40
	MW18-20180630	06/30/18	SoundEarth	<1	<1	27	<1	0.43
	MW18-20180922	09/22/18	SoundEarth	<1	<1	21	<1	0.42
	MW18-20181215	12/15/18	SoundEarth	<1	<1	24	<1	0.49
	MW18-20190615	06/15/19	SoundEarth	<1	<1	28	<1	0.44
	MW18-20191207	12/07/19	SoundEarth	<1	<1	28	<1	0.55
MTCA Cleanup Level				5[2]	5[2]	16[3]	160[3]	0.2[2]

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
MW19	MW19-20150507	05/07/15	SoundEarth	<1	69	15	<1	<0.2
	MW19-20150803	08/03/15	SoundEarth	<1	61	20	<1	<0.2
	MW19-20151207	12/07/15	SoundEarth	<1	65	23	<1	<0.2
	MW19-20160308	03/08/16	SoundEarth	<1	52	26	<1	<0.2
	MW19-20160713	07/13/16	SoundEarth	<1	4.6	10	<1	<0.2
	MW19-20161021	10/21/16	SoundEarth	<1	10	4.4	<1	0.40
	MW19-20170125	01/25/17	SoundEarth	<1	5.5	3.9	<1	0.30
	MW19-20170601	06/01/17	SoundEarth	<1	5.7	3.5	<1	0.44
	MW19-20170923	09/23/17	SoundEarth	<1	1.7	3.4	<1	0.97
	MW19-20171216	12/16/17	SoundEarth	<1	1.1	13	<1	0.97
	MW19-20180310	03/10/18	SoundEarth	<1	<1	12	<1	0.78
	MW19-20180630	06/30/18	SoundEarth	<1	<1	12	<1	0.96
	MW19-20180922	09/22/18	SoundEarth	<1	<1	16	<1	0.86
	MW19-20190615	06/15/19	SoundEarth	<1	<1	27	<1	0.79
	MW19-20191207	12/07/19	SoundEarth	<1	<1	35	<1	0.98
MW20	MW20-20150506	05/06/15	SoundEarth	<1	<1	1.5	<1	<0.2
	MW20-20150803	08/03/15	SoundEarth	<1	<1	1.2	<1	<0.2
	MW20-20151207	12/07/15	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20160309	03/09/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20160715	07/15/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20161020	10/20/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW20-20170125	01/25/17	SoundEarth	<1	<1	4.1	<1	<0.2
	MW20-20170601	06/01/17	SoundEarth	<1	<1	1.2	<1	<0.2
	MW20-20170924	09/24/17	SoundEarth	<1	<1	9.5	<1	<0.2
	MW20-20171216	12/16/17	SoundEarth	<1	1.3	15	<1	0.35
	MW20-20180310	03/10/18	SoundEarth	<1	<1	11	<1	<0.2
	MW20-20180630	06/30/18	SoundEarth	<1	<1	7	<1	<0.2
	MW20-20180922	09/22/18	SoundEarth	<1	<1	5.3	<1	<0.2
	MW20-20181215	12/15/18	SoundEarth	<1	<1	4.4	<1	<0.2
	MW20-20190615	06/15/19	SoundEarth	<1	<1	3.8	<1	<0.2
	MW20-20191207	12/07/19	SoundEarth	<1	<1	3.0	<1	<0.2
MW21	MW21-20150506	05/06/15	SoundEarth	5.1	1.6	7.2	<1	<0.2
	MW21-20150804	08/04/15	SoundEarth	4.9	1.4	4.5	<1	<0.2
	MW21-20151208	12/08/15	SoundEarth	7.3	2.0	6.7	<1	<0.2
	MW21-20160309	03/09/16	SoundEarth	5.3	1.4	7.9	<1	<0.2
	MW21-20160713	07/13/16	SoundEarth	<1	<1	1.2	<1	<0.2
	MW21-20161020	10/20/16	SoundEarth	<1	<1	1.7	<1	<0.2
	MW21-20170126	01/26/17	SoundEarth	<1	<1	2.4	<1	<0.2
	MW21-20170601	06/01/17	SoundEarth	<1	<1	2.4	<1	<0.2
	MW21-20170923	09/23/17	SoundEarth	<1	<1	3.7	<1	<0.2
	MW21-20171216	12/16/17	SoundEarth	<1	<1	14	<1	0.49
	MW21-20180310	03/10/18	SoundEarth	<1	<1	14	<1	0.43
	MW21-20180630	06/30/18	SoundEarth	<1	<1	6.0	<1	0.29
	MW21-20180922	09/22/18	SoundEarth	<1	<1	6.9	<1	0.30
	MW21-20181215	12/15/18	SoundEarth	<1	<1	16	<1	0.96
	MW21-20190615	06/15/19	SoundEarth	<1	<1	29	<1	1.1
	MW21-20191207	12/07/19	SoundEarth	<1	<1	34	<1	1.3
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
MW22	MW22-20150506	05/06/15	SoundEarth	11	2.2	27	<1	<0.2
	MW22-20150804	08/04/15	SoundEarth	17	3.0	34	<1	<0.2
	MW22-20151208	12/08/15	SoundEarth	19	3.7	42	<1	<0.2
	MW22-20160308	03/08/16	SoundEarth	28	4.5	52	<1	0.35
	MW22-20160713	07/13/16	SoundEarth	<1	<1	5.5	<1	<0.2
	MW22-20161020	10/20/16	SoundEarth	<1	<1	6.7	<1	0.65
	MW22-20170126	01/26/17	SoundEarth	<1	<1	8.5	<1	0.51
	MW22-20170601	06/01/17	SoundEarth	<1	<1	10	<1	1.5
	MW22-20170923	09/23/17	SoundEarth	<1	<1	18	<1	1.4
	MW22-20171216	12/16/17	SoundEarth	<1	<1	22	<1	1.2
	MW22-20180310	03/10/18	SoundEarth	<1	<1	22	<1	1.3
	MW22-20180630	06/30/18	SoundEarth	<1	<1	28	<1	1.2
	MW22-20180922	09/22/18	SoundEarth	<1	<1	33	<1	0.90
	MW22-20181215	12/15/18	SoundEarth	<1	<1	37	<1	1.2
	MW22-20190615	06/15/19	SoundEarth	1.1	1.1	49	<1	1.0
	MW22-20191207	12/07/19	SoundEarth	1.3	1.3	48	<1	1.0
MW23	MW23-20150507	05/07/15	SoundEarth	6.1	18	13	<1	<0.2
	MW23-20150804	08/04/15	SoundEarth	6.1	24	20	<1	0.20
	MW23-20151208	12/08/15	SoundEarth	3.8	16	120	<1	0.57
	MW23-20160308	03/08/16	SoundEarth	4.1	14	95	<1	0.64
	MW23-20160714	07/14/16	SoundEarth	<1	1.6	14	<1	2.2
	MW23-20161020	10/20/16	SoundEarth	<1	2.1	9.9	<1	0.48
	MW23-20170126	01/26/17	SoundEarth	<1	2.9	41	<1	1.4
	MW23-20170601	06/01/17	SoundEarth	<1	2.7	23	<1	0.74
	MW23-20170923	09/23/17	SoundEarth	<1	1.7	16	<1	0.50
	MW23-20171216	12/16/17	SoundEarth	<1	1.3	14	<1	0.51
	MW23-20180310	03/10/18	SoundEarth	<1	<1	20	<1	0.52
	MW23-20180630	06/30/18	SoundEarth	<1	<1	14	<1	0.53
	MW23-20180922	09/22/18	SoundEarth	<1	<1	16	<1	0.53
	MW23-20181215	12/15/18	SoundEarth	<1	<1	17	<1	<0.2
	MW23-20190615	06/15/19	SoundEarth	<1	<1	25	<1	0.72
	MW23-20191207	12/07/19	SoundEarth	<1	<1	38	<1	0.89
MW24	MW24-20150506	05/06/15	SoundEarth	2.5	31	72	<1	0.26
	MW24-20150804	08/04/15	SoundEarth	5.5	28	75	<1	<0.2
	MW24-20151208	12/08/15	SoundEarth	11	28	54	<1	<0.2
	MW24-20160309	03/09/16	SoundEarth	11	23	45	<1	<0.2
	MW24-20160715			<1	1.7	12	<1	<0.2
	MW98-20160715 (DUP)	07/15/16	SoundEarth	<1	1.8	12	<1	<0.2
	MW24-20161020	10/20/16	SoundEarth	<1	2.7	12	<1	0.26
	MW24-20170125	01/25/17	SoundEarth	<1	3.5	20	<1	0.81
	MW24-20170601	06/01/17	SoundEarth	1.1	4.8	35	<1	1.0
	MW24-20170924	09/24/17	SoundEarth	<1	1.8	33	<1	0.36
	MW24-20171216	12/16/17	SoundEarth	<1	1.3	30	<1	0.38
	MW24-20180310	03/10/18	SoundEarth	<1	<1	25	<1	0.36
	MW24-20180630	06/30/18	SoundEarth	1.5	1.9	41	<1	2.1
	MW24-20180922	09/22/18	SoundEarth	<1	<1	35	<1	0.37
	MW24-20181215	12/15/18	SoundEarth	<1	<1	43	<1	0.51
	MW24-20190615	06/15/19	SoundEarth	<1	<1	84	<1	1.0
	MW24-20191207	12/07/19	SoundEarth	<1	<1	83	<1	0.94
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
MW25	MW25-20150507	05/07/15	SoundEarth	<1	68	5.2	<1	<0.2
	MW99-20150507 (DUP)			<1	69	5.3	<1	<0.2
	MW25-20150805	08/05/15	SoundEarth	3.0	75	7.9	<1	<0.2
	MW99-20150805 (DUP)			2.9	73	7.8	<1	<0.2
	MW25-20151209	12/09/15	SoundEarth	11	71	8.4	<1	<0.2
	MW99-20151209 (DUP)			11	72	8.3	<1	<0.2
	MW25-20160308	03/08/16	SoundEarth	24	50	12	<1	<0.2
	MW99-20160308(DUP)			25	50	12	<1	<0.2
	MW25-20160713	07/13/16	SoundEarth	6.1	4.8	23	<1	0.70
	MW25-20161019	10/19/16	SoundEarth	1.8	5.1	15	<1	0.96
	MW99-20161019 (DUP)			1.7	5.0	16	<1	1.0
	MW25-20170125	01/25/17	SoundEarth	1.0	3.6	44	<1	0.89
	MW99-20170125 (DUP)			1.1	3.7	44	<1	0.92
	MW25-20170601	06/01/17	SoundEarth	<1	1.2	15	<1	0.31
	MW99-20170601 (DUP)			<1	1.3	15	<1	0.41
	MW25-20170923	09/23/17	SoundEarth	<1	<1	15	<1	0.40
	MW99-20170923 (DUP)			<1	<1	15	<1	0.34
	MW25-20171216	12/16/17	SoundEarth	<1	<1	23	<1	0.41
	MW99-20171216 (DUP)			<1	<1	23	<1	0.40
	MW25-20180310	03/10/18	SoundEarth	<1	<1	25	<1	0.32
	MW99-20180310 (DUP)			<1	<1	25	<1	0.30
	MW25-20180630	06/30/18	SoundEarth	<1	<1	31	<1	0.52
	MW99-20180630 (DUP)			<1	<1	32	<1	0.49
	MW25-20180922	09/22/18	SoundEarth	<1	<1	37	<1	0.46
	MW99-20180922 (DUP)			<1	<1	36	<1	0.51
	MW25-20181215	12/15/18	SoundEarth	<1	<1	40	<1	0.60
	MW99-20181215 (DUP)			<1	<1	39	<1	0.57
	MW25-20190615	06/15/19	SoundEarth	<1	<1	45	<1	0.54
	MW99-20190615 (DUP)			<1	<1	43	<1	0.50
	MW25-20191207	12/07/19	SoundEarth	<1	<1	40	<1	0.63
	MW99-20191207 (DUP)			<1	<1	36	<1	0.58
IW04	IW04-20150508	05/08/15	SoundEarth	<1	15	1.9	<1	<0.2
	IW04-20160309	03/09/16	SoundEarth	<1	2.5	11	<1	<0.2
	IW04-20160714	07/14/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW04-20161021	10/21/16	SoundEarth	<1	<1	1.8	<1	<0.2
	IW04-20170126	01/26/17	SoundEarth	<1	1.1	4.8	<1	<0.2
	IW04-20170601	06/01/17	SoundEarth	<1	1.2	12	<1	0.21
	IW04-20170923	09/23/17	SoundEarth	<1	<1	14	<1	0.22
	IW04-20171216	12/16/17	SoundEarth	<1	<1	19	<1	0.54
	IW04-20180310	03/10/18	SoundEarth	<1	<1	9.0	<1	0.65
	IW04-20180630	06/30/18	SoundEarth	<1	<1	5.3	<1	0.68
	IW04-20180922	09/22/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW04-20181215	12/15/18	SoundEarth	<1	<1	1.9	<1	1.6
	IW04-20190615	06/15/19	SoundEarth	<1	<1	1.7	<1	1.0
	IW04-20191207	12/07/19	SoundEarth	<1	<1	1.4	<1	1.1
IW06	IW06-20150507	05/07/15	SoundEarth	6.3	13	<1	<1	<0.2
	IW06-20180310	03/10/18	SoundEarth	<1	<1	1.6	<1	<0.2
	IW06-20180630	06/30/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW06-20181215	12/15/18	SoundEarth	1.0	<1	<1	<1	<0.2
	IW06-20190615	06/15/19	SoundEarth	1.7	<1	<1	<1	<0.2
	IW06-20191207	12/07/19	SoundEarth	1.4	<1	<1	<1	<0.2
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
IW50	IW50-20150803	08/03/15	SoundEarth	4.1	8.1	**44**	<1	<0.2
	IW50-20151208	12/08/15	SoundEarth	<1	<1	**140**	<1	**1.8**
	IW50-20160309	03/09/16	SoundEarth	<1	<1	**110**	<1	**1.9**
	IW50-20160715	07/15/16	SoundEarth	3.7	<1	**38**	<1	**2.5**
	IW50-20161021	10/21/16	SoundEarth	3.7	<1	**23**	<1	**1.0**
	IW50-20170126	01/26/17	SoundEarth	**13**	2.1	**34**	<1	**0.74**
	IW50-20170602	06/02/17	SoundEarth	<1	<1	**81**	<1	**0.95**
	IW50-20170924	09/24/17	SoundEarth	<1	<1	**26**	<1	**2.6**
	IW50-20171216	12/16/17	SoundEarth	<1	<1	15	<1	**2.2**
	IW50-20180310	03/10/18	SoundEarth	<1	<1	8.0	<1	**3.6**
	IW50-20180630	06/30/18	SoundEarth	<1	<1	4.5	<1	**2.5**
	IW50-20180922	09/22/18	SoundEarth	<1	<1	5.1	<1	**2.9**
	IW50-20181215	12/15/18	SoundEarth	1.6	<1	15	<1	**4.5**
	IW50-20190615	06/15/19	SoundEarth	**5.2**	2.0	**54**	<1	**7.1**
	IW50-20191207	12/07/19	SoundEarth	4.5	1.6	**55**	<1	**7.4**
IW61	IW61-20151208	12/08/15	SoundEarth	**10**	2.8	**120**	<1	**0.86**
	IW61-20160309	03/09/16	SoundEarth	**23**	4.2	**140**	<1	**1.7**
	IW61-20160714	07/14/16	SoundEarth	**8.3**	1.6	**24**	<1	**1.6**
	IW61-20161021	10/21/16	SoundEarth	**9.5**	2.8	**34**	<1	**0.96**
	IW61-20170126	01/26/17	SoundEarth	**8.3**	2.9	**32**	<1	**0.96**
	IW61-20170602	06/02/17	SoundEarth	**9.9**	3.4	**41**	<1	**1.3**
	IW61-20170923	09/23/17	SoundEarth	**12**	3.2	**45**	<1	**1.2**
	IW61-20171216	12/16/17	SoundEarth	**15**	3.2	**65**	<1	**1.2**
	IW61-20180310	03/10/18	SoundEarth	**15**	2.7	**71**	<1	**1.1**
	IW61-20180323*	03/23/18	SoundEarth	**15**	2.9	**82**	<1	**1.3**
	IW61-20180630	06/30/18	SoundEarth	**16**	2.5	**67**	<1	**1.7**
	IW61-20180922	09/22/18	SoundEarth	**13**	2.1	**63**	<1	**1.8**
	IW61-20181215	12/15/18	SoundEarth	**15**	2.1	**58**	<1	**2.0**
	IW61-20190615	06/15/19	SoundEarth	**13**	2.4	**71**	<1	**2.9**
	IW61-20191207	12/07/19	SoundEarth	**6.8**	1.7	**65**	<1	**4.0**
IW91	IW91-20150506	05/06/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20150804	08/04/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20151208	12/08/15	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20160309	03/09/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20160714	07/14/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20161020	10/20/16	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20170126	01/26/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20170601	06/01/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20170923	09/23/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20171216	12/16/17	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180310	03/10/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180630	06/30/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20180922	09/22/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20181215	12/15/18	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20190615	06/15/19	SoundEarth	<1	<1	<1	<1	<0.2
	IW91-20191207	12/07/19	SoundEarth	<1	<1	<1	<1	<0.2
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
Boren Avenue North								
MW04	MW04-20110527	05/27/11	SoundEarth	<1	15	<1	<1	<0.2
	MW04-20111012	10/12/11	SoundEarth	<1	15	<1	<1	<0.2
	MW04-20130909	09/09/13	SoundEarth	<1	22	15	<1	<0.2
	MW04-20150508	05/08/15	SoundEarth	1.4	13	4.2	<1	<0.2
	MW04-20150806	08/06/15	SoundEarth	<1	6.9	1.0	<1	<0.2
	MW04-20151209	12/09/15	SoundEarth	<1	9.2	<1	<1	<0.2
	MW04-20160308	03/08/16	SoundEarth	<1	9.6	1.1	<1	<0.2
	MW04-20160713	07/13/16	SoundEarth	1.0	8.9	1.3	<1	<0.2
	MW04-20161019	10/19/16	SoundEarth	<1	5.5	<1	<1	<0.2
	MW04-20170124	01/24/17	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20170531	05/31/17	SoundEarth	<1	9.3	<1	<1	<0.2
	MW04-20170921	09/21/17	SoundEarth	<1	5.7	3.2	<1	<0.2
	MW04-20171214	12/14/17	SoundEarth	<1	8.0	2.4	<1	<0.2
	MW04-20180309	03/09/18	SoundEarth	<1	8.6	<1	<1	<0.2
	MW04-20180629	06/29/18	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20180920	09/20/18	SoundEarth	<1	9.4	<1	<1	<0.2
	MW04-20181214	12/14/18	SoundEarth	<1	10	<1	<1	<0.2
	MW04-20190614	06/14/19	SoundEarth	<1	11	<1	<1	<0.2
	MW04-20191205	12/05/19	SoundEarth	<1	11	<1	<1	<0.2
MW05	MW05-20110527	05/27/11	SoundEarth	39	16	1.8	<1	<0.2
	MW05-20111012	10/12/11	SoundEarth	29	14	1.5	<1	<0.2
	MW05-20130910	09/10/13	SoundEarth	21	13	1.9	<1	<0.2
	DECOMMISSIONED 2015							
MW07	MW07-20110531	05/31/11	SoundEarth	1.4	12	2.3	<1	<0.2
	MW07-20111012	10/12/11	SoundEarth	2.2	11	1.8	<1	<0.2
	MW07-20130909	09/09/13	SoundEarth	1.5	33	5.4	<1	<0.2
	MW07-20150508	05/08/15	SoundEarth	2.5	15	4.8	<1	<0.2
	MW07-20150805	08/05/15	SoundEarth	1.8	12	3.2	<1	<0.2
	MW07-20151209	12/09/15	SoundEarth	2.3	14	4.1	<1	<0.2
	MW07-20160308	03/08/16	SoundEarth	2.6	13	3.8	<1	<0.2
	MW07-20160713	07/13/16	SoundEarth	3.0	18	5.7	<1	<0.2
	MW07-20161019	10/19/16	SoundEarth	3.5	13	2.3	<1	<0.2
	MW07-20170124	01/24/17	SoundEarth	4.8	8.1	<1	<1	<0.2
	MW07-20170531	05/31/17	SoundEarth	4.7	8.6	<1	<1	<0.2
	MW07-20180308	03/08/18	SoundEarth	2.6	11	1.1	<1	<0.2
	MW07-20180629	06/29/18	SoundEarth	3.3	7.3	<1	<1	<0.2
	MW07-20180920	09/20/18	SoundEarth	2.8	6.0	<1	<1	<0.2
	MW07-20181214	12/14/18	SoundEarth	3.3	6.7	<1	<1	<0.2
	MW07-20190614	06/14/19	SoundEarth	3.9	5.9	<1	<1	<0.2
	MW07-20191205	12/05/19	SoundEarth	3.3	5.9	<1	<1	<0.2
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
MW13	MW13-20111020	10/20/11	SoundEarth	5.1	1.2	<1	<1	<0.2
	MW13-20130910	09/10/13	SoundEarth	11	1.4	<1	<1	<0.2
	MW13-20150511	05/11/15	SoundEarth	4.6[cf]	1.7[cf]	<1[cf]	<1[cf]	<0.2[cf]
	MW13-20150805	08/05/15	SoundEarth	5.4	2.3	<1	<1	<0.2
	MW13-20151215	12/15/15	SoundEarth	5.6	1.6	<1	<1	<0.2
	MW13-20160307	03/07/16	SoundEarth	6.6	1.6	<1	<1	<0.2
	MW13-20160712	07/12/16	SoundEarth	6.5	1.6	<1	<1	<0.2
	MW13-20161019	10/19/16	SoundEarth	10	2.2	<1	<1	<0.2
	MW13-20170124	01/24/17	SoundEarth	6.4	1.0	<1	<1	<0.2
	MW13-20170531	05/31/17	SoundEarth	10	1.5	<1	<1	<0.2
	MW13-20170921	09/21/17	SoundEarth	8.4	1.8	<1	<1	<0.2
	MW13-20171214	12/14/17	SoundEarth	5.2	1.4	<1	<1	<0.2
	MW13-20180308	03/08/18	SoundEarth	8.0	1.4	<1	<1	<0.2
	MW13-20180629	06/29/18	SoundEarth	4.4	<1	<1	<1	<0.2
	MW13-20180920	09/20/18	SoundEarth	6.5	1.3	<1	<1	<0.2
	MW13-20181214	12/14/18	SoundEarth	7.8	1.4	<1	<1	<0.2
	MW13-20190614	06/14/19	SoundEarth	7.0	1.1	<1	<1	<0.2
	MW13-20191205	12/05/19	SoundEarth	7.7	1.1	<1	<1	<0.2
MW27	MW27-20151210	12/10/15	SoundEarth	<1	21	2.5	<1	<0.2
	MW27-20160307	03/07/16	SoundEarth	<1	21	3.8	<1	<0.2
	MW27-20160713	07/13/16	SoundEarth	<1	18	4.5	<1	<0.2
	MW27-20161019	10/19/16	SoundEarth	<1	23	4.8	<1	<0.2
	MW27-20170124	01/24/17	SoundEarth	<1	33	13	<1	<0.2
	MW27-20170531	05/31/17	SoundEarth	<1	18	5.5	<1	<0.2
	MW27-20170921	09/21/17	SoundEarth	<1	16	4.0	<1	<0.2
	MW27-20171214	12/14/17	SoundEarth	<1	81	4.4	<1	<0.2
	MW27-20171229	12/29/17	SoundEarth	<1	60	3.5	<1	<0.2
	MW27-20180308	03/08/18	SoundEarth	<1	13	<1	<1	<0.2
	MW27-20180628	06/28/18	SoundEarth	<1	37	3.4	<1	<0.2
	MW27-20180920	09/20/18	SoundEarth	<1	21	3.7	<1	<0.2
	MW27-20181214	12/14/18	SoundEarth	<1	17	4.3	<1	<0.2
	MW27-20190614	06/14/19	SoundEarth	<1	14	2.3	<1	<0.2
	MW27-20191205	12/05/19	SoundEarth	<1	15	2.2	<1	<0.2
MW31	MW31-20191009	10/09/19	SoundEarth	<1	1.8	<1	<1	<0.2
	MW31-20191205	12/05/19	SoundEarth	<1	3.3	<1	<1	<0.2
Terry Avenue North								
MW15	MW15-20121211	12/11/12	SoundEarth	<1	8.2	<1	<1	<0.2
	MW15-20121221	12/21/12	SoundEarth	<1	7.2	<1	<1	<0.2
	MW15-20130910	09/10/13	SoundEarth	<1	8.6	<1	<1	<0.2
	MW15-20150508	05/08/15	SoundEarth	<1	6.5	<1	<1	<0.2
	MW15-20150805	08/05/15	SoundEarth	<1	5.3	<1	<1	<0.2
	MW15-20151209	12/09/15	SoundEarth	<1	6.8	<1	<1	<0.2
	MW15-20160308	03/08/16	SoundEarth	<1	6.7	<1	<1	<0.2
	MW15-20160713	07/13/16	SoundEarth	<1	5.8	<1	<1	<0.2
	MW15-20161018	10/18/16	SoundEarth	<1	5.3	<1	<1	<0.2
	MW15-20170125	01/25/17	SoundEarth	<1	7.4	<1	<1	<0.2
	MW15-20170531	05/31/17	SoundEarth	<1	7.9	<1	<1	<0.2
	MW15-20170922	09/22/17	SoundEarth	<1	3.9	<1	<1	<0.2
	MW15-20171215	12/15/17	SoundEarth	<1	3.0	<1	<1	<0.2
	MW15-20180309	03/09/18	SoundEarth	<1	3.3	<1	<1	<0.2
	MW15-20180629	06/29/18	SoundEarth	<1	5.1	<1	<1	<0.2
	MW15-20180920	09/20/18	SoundEarth	<1	6.9	<1	<1	<0.2
	MW15-20181214	12/14/18	SoundEarth	<1	7.0	<1	<1	<0.2
	MW15-20190613	06/13/19	SoundEarth	<1	6.8	<1	<1	<0.2
	MW15-20191205	12/05/19	SoundEarth	<1	4.9	<1	<1	<0.2
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
Thomas Street								
MW14	MW14-20111020	10/20/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW14-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2013							
MW16	MW16-20121211	12/11/12	SoundEarth	**16**	**12**	**220**	<1	**0.69**
	MW16-20130911	09/11/13	SoundEarth	**6.4**	**5.0**	**610**	<1	**1.9**
	MW16-20150508	05/08/15	SoundEarth	**7.5**	**7.6**	**640**	<1	**2.8**
	MW16-20150805	08/05/15	SoundEarth	**7.8**	**7.3**	**550**	<1	**2.4**
	MW16-20151210	12/10/15	SoundEarth	**5.3**	4.5	**510**	<1	**3.2**
	MW16-20160308	03/08/16	SoundEarth	3.7	2.0	**190**	<1	**1.3**
	MW16-20160712	07/12/16	SoundEarth	<1	<1	**160**	<1	**2.0**
	MW16-20161019	10/19/16	SoundEarth	5.0	**5.4**	**170**	<1	**1.2**
	MW16-20170125	01/25/17	SoundEarth	**6.4**	**6.8**	**220**	<1	**0.98**
	MW16-20170531	05/31/17	SoundEarth	**5.7**	4.4	**100**	<1	**0.49**
	MW16-20170922	09/22/17	SoundEarth	**5.4**	**5.2**	**78**	<1	**0.40**
	MW16-20171229	12/29/17	SoundEarth	**7.2**	**6.4**	**150**	<1	**0.89**
	MW16-20180309	03/09/18	SoundEarth	**7.3**	**5.5**	**80**	<1	**0.35**
	WELL DAMAGED 2018							
MW28	MW28-20190315	03/15/19	SoundEarth	**7.7**	4.7	**67**	<1	**0.47**
	MW28-20190613	06/13/19	SoundEarth	**9.0**	**5.7**	**80**	<1	**0.35**
	MW28-20191009	10/09/19	SoundEarth	**8.7**	**6.1**	**72**	<1	**0.31**
	MW28-20191204	12/04/19	SoundEarth	**8.4**	**4.9**	**52**	<1	**0.27**
Fairview Avenue North								
MW-C	MW-C-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
Harrison Street								
MW01	MW01-20110525	05/25/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20111011	10/11/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20130910	09/10/13	SoundEarth	<1	1.4	<1	<1	<0.2
	MW01-20150806	08/06/15	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20160308	03/08/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20160712	07/12/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20161018	10/18/16	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20170124	01/24/17	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20170531	05/31/17	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20171214	12/14/17	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20180309	03/09/18	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20180628	06/28/18	SoundEarth	<1	1.1	<1	<1	<0.2
	MW01-20180920	09/20/18	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20181214	12/14/18	SoundEarth	<1	1.1	<1	<1	<0.2
	MW01-20190614	06/14/19	SoundEarth	<1	<1	<1	<1	<0.2
	MW01-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
MW02	MW02-20110525	05/25/11	SoundEarth	<1	**5.2**	<1	<1	<0.2
	MW02-20111011	10/11/11	SoundEarth	<1	3.0	<1	<1	<0.2
	MW02-20130911	09/11/13	SoundEarth	<1	3.6	<1	<1	<0.2
	DECOMMISSIONED 2015							
MW03	MW03-20110527	05/27/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW03-20111011	10/11/11	SoundEarth	<1	<1	<1	<1	<0.2
	MW03-20130911	09/11/13	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2015							
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

Table 2
Groundwater Analytical Results for CVOCs
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)				
				PCE[1]	TCE[1]	cis-1-2-DCE[1]	trans-1-2-DCE[1]	Vinyl Chloride[1]
MW26	MW26-20151210	12/10/15	SoundEarth	<1	11	<1	<1	<0.2
	MW26-20160307	03/07/16	SoundEarth	<1	10	<1	<1	<0.2
	MW26-20160712	07/12/16	SoundEarth	<1	12	<1	<1	<0.2
	MW26-20161018	10/18/16	SoundEarth	<1	12	<1	<1	<0.2
	MW26-20170124	01/24/17	SoundEarth	<1	13	<1	<1	<0.2
	MW26-20170531	05/31/17	SoundEarth	<1	7.9	<1	<1	<0.2
	MW26-20170921	09/21/17	SoundEarth	<1	7.1	<1	<1	<0.2
	MW26-20171214	12/14/17	SoundEarth	<1	15	1.4	<1	<0.2
	MW26-20180309	03/09/18	SoundEarth	<1	6.0	<1	<1	<0.2
	MW26-20180628	06/28/18	SoundEarth	<1	18	<1	<1	<0.2
	MW26-20180920	09/20/18	SoundEarth	<1	18	<1	<1	<0.2
	MW26-20181214	12/14/18	SoundEarth	<1	20	<1	<1	<0.2
	MW26-20190614	06/14/19	SoundEarth	<1	20	<1	<1	<0.2
	MW26-20191205	12/05/19	SoundEarth	<1	13	<1	<1	<0.2
MW32	MW32-20191009	10/09/19	SoundEarth	<1	<1	<1	<1	<0.2
	MW32-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
MW33	MW33-20191009	10/09/19	SoundEarth	<1	<1	<1	<1	<0.2
	MW33-20191205	12/05/19	SoundEarth	<1	<1	<1	<1	<0.2
SMW06	SMW06-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
Westlake Avenue North								
SMW09	SMW09-20130910	09/10/13	SoundEarth	<1	<1	<1	<1	<0.2
South-Adjoining Property								
MW29	MW29-20191008	10/08/19	SoundEarth	8.6	9.4	52	<1	0.64
	MW29-20191204	12/04/19	SoundEarth	16	12	26	<1	0.40
MW30	MW30-20191008	10/08/19	SoundEarth	<1	3.6	24	<1	<0.2
	MW30-20191204	12/04/19	SoundEarth	<1	2.0	11	<1	<0.2
ONNI-MW-4	ONNI-MW-4-20191208	12/08/19	SoundEarth	<1	<1	<1	<1	<0.2
ONNI-MW-5	ONNI-MW-5-20191208	12/08/19	SoundEarth	<1	<1	<1	<1	0.28
North-Adjoining Property								
SLU-MW01	MW01-20120229	02/29/12[4]	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2013							
SLU-MW02	MW02-20120229	02/29/12[4]	SoundEarth	<1	<1	<1	<1	<0.2
	DECOMMISSIONED 2013							
MTCA Cleanup Level				**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**

NOTES:

Red denotes concentrations exceeding the MTCA Method cleanup level for groundwater.

[1]Analyzed by US Environmental Protection Agency Method 8260C, 8021B, or 8240.

[2]MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of WAC, revised November 2007.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[4]Sample data compiled from reports on file at the Washington State Department of Ecology.

Laboratory Notes:

[cf]The sample was centrifuged prior to analysis.

[ve]Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

*The sample was collected with a passive diffusion bag.

< = not detected at a concentration exceeding laboratory reporting limit

µg/L = micrograms per liter

CLARC = Cleanup Levels and Risk Calculations

CVOC = chlorinated volatile organic compound

DCE = dichloroethene

MTCA = Washington State Model Toxics Control Act

PCE = tetrachloroethene

SoundEarth = SoundEarth Strategies, Inc.

TCE = trichloroethene

WAC = Washington Administrative Code

SoundEarth Strategies

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
Troy Laundry Property										
MW06	MW06-20110531	05/31/11	SoundEarth	330[x]	<250	<100	<1	<1	<1	<3
	MW06-20111011	10/10/11	SoundEarth	83[x]	<250	<100	<1	<1	<1	<3
	MW06-20130909	09/09/13	SoundEarth	150[x]	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW08	MW08-20111013	10/13/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW08-20130910	09/10/13	SoundEarth	120[x]	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW09	MW09-20111013	10/13/11	SoundEarth	240[x]	<250	1,400	<1	<1	2.7	10
	MW09-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW10	MW10-20111012	10/12/11	SoundEarth	68[x]	<250	<100	<1	<1	<1	<3
	MW10-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW11	MW11-20111013	10/13/11	SoundEarth	110[x]	<250	<100	<1	<1	<1	<3
	MW11-20130909	09/09/13	SoundEarth	97[x]	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW12	MW12-20111017	10/17/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW12-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2013									
MW17	MW17-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20150804	08/04/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20151207	12/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20160714	07/14/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20161020	10/20/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20170126	01/26/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20170601	06/01/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20170923	09/23/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20171216	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW17-20180310	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20180630	06/30/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW17-20180922	09/22/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20181215	12/15/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20190615	06/15/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW17-20191207	12/07/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW18	MW18-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20150803	08/03/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20151208	12/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW18-20160714	07/14/16	SoundEarth	31,000[x, ip]	5,100[x, ip]	<100	<0.35	<1	<1	<3
	MW18-20161020	10/20/16	SoundEarth	61,000[x, ip]	<8,400[x, ip]	1,100[x]	<0.35	<1	<1	<3
	MW18-20170126	01/26/17	SoundEarth	22,000[x, ip]	3,500[x, ip]	840	<0.35	<1	<1	<3
	MW18-20170601	06/01/17	SoundEarth	77,000[x, ip]	1,600[x, ip]	470	<0.35	<1	<1	<3
	MW18-20170923	09/23/17	SoundEarth	34,000[x]	<3,500	210	<0.35	<1	<1	<3
	MW18-20171216	12/16/17	SoundEarth	18,000[x, ip]	<2,500[ip]	380	<0.35	<1	<1	<3
	MW18-20180310	03/10/18	SoundEarth	6,000[x]	<2,500	390	<1	1.3	<1	<3
	MW18-20180630	06/30/18	SoundEarth	12,000[x]	1,600[x]	230	<1	1.3	<1	12
	MW18-20180922	09/22/18	SoundEarth	1,400[x, ip]	<2,500[ip]	290	<1	<1	<1	6.9
	MW18-20181215	12/15/18	SoundEarth	1,600[x]	490[x]	<100	<1	<1	<1	<3
	MW18-20190615	06/15/19	SoundEarth	1,100[x]	830[x]	<100	<1	<1	<1	<3
	MW18-20191207	12/07/19	SoundEarth	830[x]	480[x]	<100	<1	<1	<1	<3
MW19	MW19-20150507	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20150803	08/03/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20151207	12/07/15	SoundEarth	85[x]	<250	<100	<0.35	<1	<1	<3
	MW19-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW19-20160713	07/13/16	SoundEarth	21,000[x, ip]	4,100[x, ip]	<100	<0.35	<1	<1	<3
	MW19-20161021	10/21/16	SoundEarth	18,000[x, ip]	2,300[x, ip]	<100	<0.35	<1	<1	<3
	MW19-20170125	01/25/17	SoundEarth	29,000[x]	4,400[x]	210[x]	<0.35	<1	<1	<3
	MW19-20170601	06/01/17	SoundEarth	31,000[x, ip]	3,400[x, ip]	180	<0.35	<1	<1	<3
	MW19-20170923	09/23/17	SoundEarth	27,000[x, ip]	<3,000[ip]	150	<0.35	<1	<1	<3
	MW19-20171216	12/16/17	SoundEarth	9,700[x, ip]	<2,500[ip]	470	<0.35	<1	<1	<3
	MW19-20180310	03/10/18	SoundEarth	1,600[x]	<2,500	250	<1	<1	<1	<3
	MW19-20180630	06/30/18	SoundEarth	13,000[x]	820[x]	310	<1	<1	<1	9.6
	MW19-20180922	09/22/18	SoundEarth	3,300[x, ip]	<2,500[ip]	300	<1	<1	<1	5.0
	MW19-20190615	06/15/19	SoundEarth	650[x]	430[x]	<100	<1	<1	<1	<3
	MW19-20191207	12/07/19	SoundEarth	610[x]	690[x]	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW20	MW20-20150506	05/06/15	SoundEarth	120[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20150803	08/03/15	SoundEarth	140[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20151207	12/07/15	SoundEarth	84[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20160309	03/09/16	SoundEarth	130[x]	<300	<100	<0.35	<1	<1	<3
	MW20-20160715	07/15/16	SoundEarth	150[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20161020	10/20/16	SoundEarth	110[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20170125	01/25/17	SoundEarth	64[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20170601	06/01/17	SoundEarth	94[x]	<250	<100	<0.35	<1	<1	<3
	MW20-20170924	09/24/17	SoundEarth	130[x]	<300	<100	<0.35	<1	<1	<3
	MW20-20171216	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW20-20180310	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW20-20180630	06/30/18	SoundEarth	120[x]	<250	<100	<1	<1	<1	<3
	MW20-20180922	09/22/18	SoundEarth	100[x]	<250	<100	<1	<1	<1	<3
	MW20-20181215	12/15/18	SoundEarth	72[x]	<250	<100	<1	<1	<1	<3
	MW20-20190615	06/15/19	SoundEarth	140[x]	<250	<100	<1	<1	<1	<3
	MW20-20191207	12/07/19	SoundEarth	80[x]	<250	<100	<1	<1	<1	<3
MW21	MW21-20150506	05/06/15	SoundEarth	160[x]	<250	<100	<0.35	<1	<1	<3
	MW21-20150804	08/04/15	SoundEarth	150[x]	<250	<100	<0.35	<1	<1	<3
	MW21-20151208	12/08/15	SoundEarth	110[x]	<250	<100	<0.35	<1	<1	<3
	MW21-20160309	03/09/16	SoundEarth	120[x]	<250	<100	<0.35	<1	<1	<3
	MW21-20160713	07/13/16	SoundEarth	12,000[x]	2,700[x]	<100	<0.35	<1	<1	<3
	MW21-20161020	10/20/16	SoundEarth	77,000[x, ip]	8,600[x, ip]	<100	<0.35	<1	<1	<3
	MW21-20170126	01/26/17	SoundEarth	16,000[x, ip]	10,000[x, ip]	<100	<0.35	<1	<1	<3
	MW21-20170601	06/01/17	SoundEarth	48,000[x, ip]	18,000[x, ip]	130	<0.35	<1	<1	<3
	MW21-20170923	09/23/17	SoundEarth	67,000[x, ip]	7,700[x, ip]	220	<0.35	<1	<1	<3
	MW21-20171216	12/16/17	SoundEarth	27,000[x]	<2,500	390	<0.35	<1	<1	<3
	MW21-20180310	03/10/18	SoundEarth	23,000[x]	<2,500	130	<1	<1	<1	<3
	MW21-2018630	06/30/18	SoundEarth	65,000[x, ip]	5,200[x, ip]	670	<1	3.0	11	11
	MW21-20180922	09/22/18	SoundEarth	53,000[x, ip]	8,600[x, ip]	400	<1	<1	<1	3.4
	MW21-20181215	12/15/18	SoundEarth	47,000[x]	2,100[x]	180	<1	<1	<1	6.5
	MW21-20190615	06/15/19	SoundEarth	6,400[x]	<2,500	<100	<1	<1	<1	3.8
	MW21-20191207	12/07/19	SoundEarth	21,000[x]	2,100[x]	300	<1	<1	<1	4.8
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW22	MW22-20150506	05/06/15	SoundEarth	97[x]	<250	<100	<0.35	<1	<1	<3
	MW22-20150804	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW22-20151208	12/08/15	SoundEarth	69[x]	<300	<100	<0.35	<1	<1	<3
	MW22-20160308	03/08/16	SoundEarth	110[x]	<250	<100	<0.35	<1	<1	<3
	MW22-20160713	07/13/16	SoundEarth	8,000[x, ip]	2,100[x, ip]	140	<0.35	<1	<1	<3
	MW22-20161020	10/20/16	SoundEarth	29,000[x, ip]	7,500[x, ip]	130	<0.35	<1	<1	<3
	MW22-20170126	01/26/17	SoundEarth	13,000[x, ip]	13,000[x, ip]	730	<0.35	<1	<1	<3
	MW22-20170601	06/01/17	SoundEarth	59,000[x]	8,700[x]	660	<0.35	<1	<1	<3
	MW22-20170923	09/23/17	SoundEarth	85,000[x,ip]	<2,500[ip]	390	<0.35	<1	<1	<3
	MW22-20171216	12/16/17	SoundEarth	58,000[x,ip]	<3,000[ip]	1,800	<0.35	<1	<1	<3
	MW22-20180310	03/10/18	SoundEarth	50,000[x]	<2,500	530	<0.35	<1	<1	10
	MW22-20180630	06/30/18	SoundEarth	86,000[x, ip]	4,500[x, ip]	620	<1	<1	<1	34
	MW22-20180922	09/22/18	SoundEarth	73,000[x, ip]	6,800[x, ip]	320	<1	<1	<1	21
	MW22-20181215	12/15/18	SoundEarth	49,000[x]	7,700[x]	180	<1	<1	<1	14
	MW22-20190615	06/15/19	SoundEarth	24,000[x]	4,600[x]	170	<1	<1	<1	21
	MW22-20191207	12/07/19	SoundEarth	40,000[x]	3,400[x]	810	<1	<1	<1	74
MW23	MW23-20150507	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW23-20150804	08/04/15	SoundEarth	520[x]	<250	<100	<0.35	<1	<1	<3
	MW23-20151208	12/08/15	SoundEarth	190[x]	<300	<100	<0.35	<1	<1	<3
	MW23-20160308	03/08/16	SoundEarth	410[x]	<250	<100	<0.35	<1	<1	<3
	MW23-20160714	07/14/16	SoundEarth	26,000[x, ip]	1,500[x, ip]	190	<0.35	<1	<1	<3
	MW23-20161020	10/20/16	SoundEarth	80,000[x, ip]	<5,000[ip]	350	<0.35	<1	<1	<3
	MW23-20170126	01/26/17	SoundEarth	14,000[x, ip]	5,600[x, ip]	240	<0.35	<1	<1	<3
	MW23-20170601	06/01/17	SoundEarth	140,000[x, ip]	4,000[x, ip]	210	<0.35	<1	<1	<3
	MW23-20170923	09/23/17	SoundEarth	140,000[x]	<2,500	170	<0.35	<1	<1	<3
	MW23-20171216	12/16/17	SoundEarth	110,000[x, ip]	<2,500[ip]	2,200	<0.35	<1	<1	<3
	MW23-20180310	03/10/18	SoundEarth	11,000[x]	<2,500	600	<1	<1	<1	4.6
	MW23-20180630	06/30/18	SoundEarth	30,000[x]	1,000[x]	540	<1	<1	<1	31
	MW23-20180922	09/22/18	SoundEarth	19,000[x, ip]	<2,600[ip]	150	<1	<1	<1	11
	MW23-20181215	12/15/18	SoundEarth	14,000[x]	500[x]	180	<1	<1	<1	7.1
	MW23-20190615	06/15/19	SoundEarth	3,400[x]	<2,500	260	<1	<1	<1	7.1
	MW23-20191207	12/07/19	SoundEarth	1,400[x]	790[x]	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

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Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW24	MW24-20150506	05/06/15	SoundEarth	93[x]	<250	<100	<0.35	<1	<1	<3
	MW24-20150804	08/04/15	SoundEarth	94[x]	<250	<100	<0.35	<1	<1	<3
	MW24-20151208	12/08/15	SoundEarth	240[x]	<250	<100	<0.35	<1	<1	<3
	MW24-20160309	03/09/16	SoundEarth	130[x]	<250	<100	<0.35	<1	<1	<3
	MW24-20160715		SoundEarth	13,000[x, ip]	1,400[x, ip]	<100	<0.35	<1	<1	<3
	MW98-20160715 (DUP)	07/15/16	SoundEarth	11,000[x, ip]	1,900[x, ip]	<100	<0.35	<1	<1	<3
	MW24-20161020	10/20/16	SoundEarth	3,200[x,ip]	1,900[x,ip]	<100	<0.35	<1	<1	<3
	MW24-20170125	01/25/17	SoundEarth	12,000[x]	2,000[x]	<100	<0.35	<1	<1	<3
	MW24-20170601	06/01/17	SoundEarth	510,000[x, ip]	27,000[x, ip]	<100	<0.35	<1	<1	<3
	MW24-20170601	09/24/17	SoundEarth	39,000[x, ip]	<3,000[ip]	250	<0.35	<1	<1	<3
	MW24-20171216	12/16/17	SoundEarth	10,000[x]	<3,000	990	<0.35	<1	<1	<3
	MW24-20180310	03/10/18	SoundEarth	990[x]	<2,500	460	<1	<1	<1	3.7
	MW24-20180630	06/30/18	SoundEarth	75,000[x, ip]	7,700[x,ip]	2,700	<1	3.6	6.5	110
	MW24-20180922	09/22/18	SoundEarth	7,800[x, ip]	<2,500[ip]	190	<1	<1	<1	7.5
	MW24-20181215	12/15/18	SoundEarth	20,000[x]	2,700[x]	<100	<1	<1	<1	<3
	MW24-20190615	06/15/19	SoundEarth	6,400[x]	<2,500	<100	<1	<1	<1	<3
	MW24-20191207	12/07/19	SoundEarth	7,100[x]	1,400[x]	<100	<1	<1	<1	<3
MW25	MW25-20150507			<50	<250	<100	<0.35	<1	<1	<3
	MW99-20150507 (DUP)	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW25-20150805			<50	<250	<100	<0.35	<1	<1	<3
	MW99-20150805 (DUP)	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW25-20151209			86[x]	<250	<100	<0.35	<1	<1	<3
	MW99-20151209 (DUP)	12/09/15	SoundEarth	100[x]	<300	<100	<0.35	<1	<1	<3
	MW25-20160308			190[x]	<250	<100	<0.35	<1	<1	<3
	MW99-20160308(DUP)	03/08/16	SoundEarth	160[x]	<250	<100	<0.35	<1	<1	<3
	MW25-20160713	07/13/16	SoundEarth	43,000[x]	5,000[x]	110	<0.35	<1	<1	<3
	MW25-20161019			26,000[x]	1,500[x]	160	--	--	--	--
	MW99-20161019(DUP)	10/19/16	SoundEarth	29,000[x]	1,600[x]	160	--	--	--	--
	MW25-20170125			8,200[x]	340[x]	120[x]	<0.35	<1	<1	<3
	MW99-20170125(DUP)	01/25/17	SoundEarth	6,900[x]	350[x]	150[x]	<0.35	<1	<1	<3
	MW25-20170601			50,000[x, ip]	<1,000[ip]	370	<0.35	<1	<1	<3
	MW99-20170601(DUP)	06/01/17	SoundEarth	46,000[x, ip]	<1,000[ip]	410	<0.35	<1	<1	<3
	MW25-20170923			12,000[x, ip]	<2,500[ip]	270	<0.35	<1	<1	<3
	MW99-20170923(DUP)	09/23/17	SoundEarth	13,000[x, ip]	<2,500[ip]	220	<0.35	<1	<1	<3
	MW25-20171216			4,000[x, ip]	<3,000[ip]	580	<0.35	<1	<1	<3
	MW99-20171216 (DUP)	12/16/17	SoundEarth	4,000[x, ip]	<3,000[ip]	700	<0.35	<1	<1	<3
	MW25-20180310			3,300[x]	<2,500	490	<1	<1	<1	4.7
	MW99-20180310 (DUP)	03/10/18	SoundEarth	3,800[x]	<2,500	510	<1	<1	<1	4.5
	MW25-20180630			5,300[x, ip]	630[x, ip]	490	<1	<1	<1	31
	MW99-20180630 (DUP)	06/30/18	SoundEarth	5,500[x, ip]	410[x, ip]	340	<1	<1	<1	26
	MW25-20180922			1,500[x, ip]	<2,500[ip]	300	<1	<1	<1	17
	MW99-20180922 (DUP)	09/22/18	SoundEarth	1,900[x, ip]	<2,500[ip]	160	<1	<1	<1	13
	MW25-20181215			1,100[x]	<250	<100	<1	<1	<1	<3
	MW99-20181215 (DUP)	12/15/18	SoundEarth	960[x]	<250	<100	<1	<1	<1	<3
	MW25-20190615			1,000[x]	<2,500	<100	<1	<1	<1	<3
	MW99-20190615 (DUP)	06/15/19	SoundEarth	1,100[x]	<2,500	<100	<1	<1	<1	<3
	MW25-20191207			240[x]	<250	<100	<1	<1	<1	<3
	MW99-20191207 (DUP)	12/07/19	SoundEarth	300[x]	<250	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4][5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
IW04	IW04-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW04-20170601	06/01/17	SoundEarth	--	--	--	<0.35	<1	<1	<3
IW06	IW06-20150507	05/07/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
IW50	IW50-20150803	08/03/15	SoundEarth	5,000[x]	<250	<100	<0.35	<1	<1	<3
	IW50-20160715	07/15/16	SoundEarth	39,000[x]	1,900[x]	640	<0.35	<1	<1	<3
IW91	IW91-20150506	05/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20150804	08/04/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20151208	12/08/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	IW91-20160309	03/09/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20160714	07/14/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20161020	10/20/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20170126	01/26/17	SoundEarth	200[x]	<300	<100	<0.35	<1	<1	<3
	IW91-20170601	06/01/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20170923	09/23/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20171216	12/16/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	IW91-20180310	03/10/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20180630	06/30/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	IW91-20180922	09/22/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	IW91-20181215	12/15/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20190615	06/15/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	IW91-20191207	12/07/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Boren Avenue North										
MW04	MW04-20110527	05/27/11	SoundEarth	<50	<250	<100	<1	1.3	<1	<3
	MW04-20111012	10/12/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20130909	09/09/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20150806	08/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20151209	12/09/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW04-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20160713	07/13/16	SoundEarth	<56	<280	<100	<0.35	<1	<1	<3
	MW04-20161019	10/19/16	SoundEarth	<50	<250	<100	--	--	--	--
	MW04-20170124	01/24/17	SoundEarth	150[x]	<250	<100	<0.35	<1	<1	<3
	MW04-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20170921	09/21/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW04-20171214	12/14/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW04-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW04-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW05	MW05-20110527	05/27/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW05-20111012	10/12/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW05-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2015									
MW07	MW07-20110531	05/31/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20111012	10/12/11	SoundEarth	240[x]	<250	<100	<1	<1	<1	<3
	MW07-20130909	09/09/13	SoundEarth	120[x]	<250	<100	<1	<1	<1	<3
	MW07-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20151209	12/09/15	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW07-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20160713	07/13/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW07-20161019	10/19/16	SoundEarth	76[x]	<250	<100	--	--	--	--
	MW07-20170124	01/24/17	SoundEarth	120[x]	<250	<100	<0.35	<1	<1	<3
	MW07-20170531	05/31/17	SoundEarth	54[x]	<250	<100	<0.35	<1	<1	<3
	MW07-20180308	03/08/18	SoundEarth	<50	<250	<100	<1	<1	<1	<1
	MW07-20180629	06/29/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW07-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW07-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW13	MW13-20111020	10/20/11	SoundEarth	150[x]	<250	<100	<1	<1	<1	<3
	MW13-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20150511	05/11/15	SoundEarth	<70	<350	<100	<0.35[cf]	<1[cf]	<1[cf]	<3[cf]
	MW13-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20151215	12/15/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20161019	10/19/16	SoundEarth	<50	<250	<100	--	--	--	--
	MW13-20170124	01/24/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20170921	09/21/17	SoundEarth	120[x]	<300	<100	<0.35	<1	<1	<3
	MW13-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW13-20180308	03/08/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW13-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW27	MW27-20151210	12/10/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20160713	07/13/16	SoundEarth	<52	<260	<100	<0.35	<1	<1	<3
	MW27-20161019	10/19/16	SoundEarth	<50	<250	<100	--	--	--	--
	MW27-20170124	01/24/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW27-20170531	05/31/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW27-20170921	09/21/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW27-20180308	03/08/18	SoundEarth	540[x]	<250	<100	<1	<1	<1	<3
	MW27-20180628	06/28/18	SoundEarth	<60	<300	<100	<1	<1	<1	<3
	MW27-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW27-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Terry Avenue North										
MW15	MW15-20121211	12/11/12	SoundEarth	--	--	<100	<0.35	<1	<1	<3
	MW15-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20150508	05/08/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20150805	08/05/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20151209	12/09/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20160308	03/08/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20160713	07/13/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20161018	10/18/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20170125	01/25/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20170922	09/22/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW15-20171215	12/15/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW15-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20180629	06/29/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20190613	06/13/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW15-20191205	12/05/19	SoundEarth	78[x]	<250	<100	<1	<1	<1	<3
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
Thomas Street										
MW14	MW14-20111020	10/20/11	SoundEarth	160[x]	<250	<100	<1	<1	<1	<3
	MW14-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED									
MW16	MW16-20121211	12/11/12	SoundEarth	420[x]	<250	640	<0.35	<1	<1	1.1
	MW16-20130911	09/11/13	SoundEarth	170[x]	<250	110	<1	<1	<1	<3
	MW16-20150508	05/08/15	SoundEarth	150[x]	<250	<100	<0.35	<1	<1	<3
	MW16-20150805	08/05/15	SoundEarth	210[x]	<250	<100	<0.35	<1	<1	<3
	MW16-20151210	12/10/15	SoundEarth	420[x]	<250	110	<0.35	<1	<1	<3
	MW16-20160308	03/08/16	SoundEarth	410[x]	<250	140	<0.35	<1	<1	<3
	MW16-20160712	07/12/16	SoundEarth	510[x]	<250	130	<0.35	<1	<1	<3
	MW16-20161019	10/19/16	SoundEarth	310[x]	<250	<100	--	--	--	--
	MW16-20170125	01/25/17	SoundEarth	140[x]	<250	<100	<0.35	<1	<1	<3
	MW16-20170531	05/31/17	SoundEarth	740[x]	<250	140	<0.35	<1	<1	<3
	MW16-20170922	09/22/17	SoundEarth	570	<250	130	<0.35	<1	<1	<3
	MW16-20171229	12/29/17	SoundEarth	160[x]	<250	120	<0.35	<1	<1	<3
	MW16-20180309	03/09/18	SoundEarth	260[x]	<250	120	<1	<1	<1	<3
	WELL DAMAGED 2018									
MW28	MW28-20190613	06/13/19	SoundEarth	140[x]	<250	160	<1	<1	<1	<3
	MW28-20191205	12/05/19	SoundEarth	98[x]	<250	150	<1	<1	<1	<3
Fairview Avenue North										
MW-C	MW-C-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
Harrison Street										
MW01	MW01-20110525	05/25/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20130910	09/10/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20150806	08/06/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20160308	03/08/16	SoundEarth	<65	<330	<100	<0.35	<1	<1	<3
	MW01-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20161018	10/18/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20170124	01/24/17	SoundEarth	<25	<125	<100	<0.35	<1	<1	<3
	MW01-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW01-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20180628	06/28/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW01-20191205	12/05/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
MW02	MW02-20110525	05/25/11	SoundEarth	100[x]	<250	<100	<1	<1	<1	<3
	MW02-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW02-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2015									
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4] [5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

Table 3
Groundwater Analytical Results for TPH
Troy Laundry Seattle Site
300 Boren Avenue North and 399 Fairview Avenue North
Seattle, Washington

Sample Location	Sample Identification	Sample Date	Sampled By	Analytical Results (µg/L)						
				DRPH[1]	ORPH[1]	GRPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]
MW03	MW03-20110527	05/27/11	SoundEarth	130[x]	<250	<100	<1	<1	<1	<3
	MW03-20111011	10/11/11	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW03-20130911	09/11/13	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	DECOMMISSIONED 2015									
MW26	MW26-20151210	12/10/15	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20160307	03/07/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20160712	07/12/16	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20161018	10/18/16	SoundEarth	59[x]	<250	<100	<0.35	<1	<1	<3
	MW26-20170124	01/24/17	SoundEarth	<60	<300	<100	<0.35	<1	<1	<3
	MW26-20170531	05/31/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20170921	09/21/17	SoundEarth	130[x]	<250	<100	<0.35	<1	<1	<3
	MW26-20171214	12/14/17	SoundEarth	<50	<250	<100	<0.35	<1	<1	<3
	MW26-20180309	03/09/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20180628	06/28/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20180920	09/20/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20181214	12/14/18	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20190614	06/14/19	SoundEarth	<50	<250	<100	<1	<1	<1	<3
	MW26-20191205	12/05/19	SoundEarth	680[x]	<250	<100	<1	<1	<1	<3
SMW06	SMW06-20130910	09/10/13	SoundEarth	130[x]	<250	400	<1	<1	3.5	3.7
Westlake Avenue North										
SMW09	SMW09-20130910	09/10/13	SoundEarth	79[x]	<250	<100	<1	<1	<1	<3
North-Adjoining Property										
SLU-MW01	MW01-20120229	02/29/12[6]	SoundEarth	150	<250	--	--	--	--	--
	DECOMMISSIONED 2013									
SLU-MW02	MW02-20120229	02/29/12[6]	SoundEarth	<50	<250	--	--	--	--	--
	DECOMMISSIONED 2013									
MTCA Cleanup Level				**500[4]**	**500[4]**	**1,000/800[4][5]**	**5[4]**	**1,000[4]**	**700[4]**	**1,000[4]**

NOTES:

Red denotes concentrations exceeding the MTCA Method cleanup level for groundwater.

[1]Analyzed by Method NWTPH-Dx. The supply well samples collected in August 2010 were passed through a silica gel column prior to analysis to remove organic interference.

[2]Analyzed by EPA Method 418.1 or Method NWTPH-Gx.

[3]Analyzed by EPA Method 8260C, 8021B or 8240.

[4]MTCA Method A Cleanup Levels, Table 720-1 of Section 900 of Chapter 173-340 of WAC, revised November 2007.

[5]1,000 µg/L when benzene is not present and 800 µg/L when benzene is present.

[6]Sample data compiled from reports on file at the Washington State Department of Ecology.

Laboratory Notes:

[d]The sample was centrifuged prior to analysis.

[b]Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

[x]The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

-- = not analyzed, measured, or calculated

< = not detected at a concentration exceeding laboratory reporting limit

µg/L = micrograms per liter

DRPH = diesel-range petroleum hydrocarbons

EPA = US Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = heavy oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

TPH = total petroleum hydrocarbons

WAC = Washington Administrative Code

ATTACHMENT A
LABORATORY ANALYTICAL REPORTS

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 19, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on March 15, 2019 from the SOU_0731-004-05_ 20190315, F&BI 903298 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0319R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 15, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-05_ 20190315, F&BI 903298 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
903298 -01	MW28-20190315

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW28-20190315	Client:	SoundEarth Strategies
Date Received:	03/15/19	Project:	SOU_0731-004-05_ 20190315
Date Extracted:	03/15/19	Lab ID:	903298-01
Date Analyzed:	03/15/19	Data File:	031544.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.47
Chloroethane	<1
1,1-Dichloroethene	1.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	67
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.7
Tetrachloroethene	7.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20190315
Date Extracted:	03/18/19	Lab ID:	09-0569 mb
Date Analyzed:	03/18/19	Data File:	031817.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 03/19/19
Date Received: 03/15/19
Project: SOU_0731-004-05_ 20190315, F&BI 903298

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 903261-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	104	36-166
Chloroethane	ug/L (ppb)	50	<1	101	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	94	60-136
Methylene chloride	ug/L (ppb)	50	<5	97	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	91	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	90	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	92	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	99	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	94	60-146
Trichloroethene	ug/L (ppb)	50	<1	87	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	91	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	104	105	50-154	1
Chloroethane	ug/L (ppb)	50	98	99	58-146	1
1,1-Dichloroethene	ug/L (ppb)	50	98	101	67-136	3
Methylene chloride	ug/L (ppb)	50	98	100	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	102	105	68-128	3
1,1-Dichloroethane	ug/L (ppb)	50	104	106	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	102	105	80-123	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	106	108	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	110	113	83-130	3
Trichloroethene	ug/L (ppb)	50	97	97	80-120	0
Tetrachloroethene	ug/L (ppb)	50	104	105	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

903298

SAMPLE CHAIN OF CUSTODY

ME 03/15/19

Page # 1 of 1

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature)

PROJECT NAME/NO.: Troy Laundry Property

PO #: 0731-004-05

REMARKS: EIM Y

TURNAROUND TIME

Standard (2 Weeks) (3/18)

RUSH 24-hour

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
			01														
MW28-20190315	MW28	—	AC	3/15/19	1152	H_2O	3				X						

CJ 3/15/19

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	3/15/19	1234
Received by:	Nhan Phan	FCBT	3/15/19	1235
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
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Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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Eric Young, B.S.

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fbi@isomedia.com
www.friedmanandbruya.com

October 31, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included is the amended report from the testing of material submitted on June 14, 2019 from the SOU_0731-004-05_ 20190614, F&BI 906291 project. The sample IDs were amended.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0626R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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fbi@isomedia.com
www.friedmanandbruya.com

June 26, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

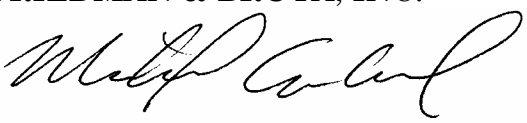
Dear Mr Cammarata:

Included are the results from the testing of material submitted on June 14, 2019 from the SOU_0731-004-05_ 20190614, F&BI 906291 project. There are 22 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0626R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 14, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-05_ 20190614, F&BI 906291 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
906291 -01	MW28-20190613
906291 -02	MW15-20190613
906291 -03	MW27-20190614
906291 -04	MW13-20190614
906291 -05	MW01-20190614
906291 -06	MW26-20190614
906291 -07	MW07-20190614
906291 -08	MW04-20190614

Samples MW28-20190613, MW26-20190614, MW07-20190614, and MW04-20190614 were sent to Fremont Analytical for nitrate, sulfate, alkalinity, dissolved gasses, and ferrous iron analysis. In addition, samples MW26-20190614 and MW07-20190614 were sent to Fremont for TOC analysis. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291
Date Extracted: 06/17/19
Date Analyzed: 06/17/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW28-20190613 906291-01	<1	<1	<1	<3	160	104
MW15-20190613 906291-02	<1	<1	<1	<3	<100	100
MW27-20190614 906291-03	<1	<1	<1	<3	<100	101
MW13-20190614 906291-04	<1	<1	<1	<3	<100	101
MW01-20190614 906291-05	<1	<1	<1	<3	<100	101
MW26-20190614 906291-06	<1	<1	<1	<3	<100	102
MW07-20190614 906291-07	<1	<1	<1	<3	<100	104
MW04-20190614 906291-08	<1	<1	<1	<3	<100	103
Method Blank 09-1404 MB	<1	<1	<1	<3	<100	113

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291
Date Extracted: 06/17/19
Date Analyzed: 06/17/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW28-20190613 906291-01	140 x	<250	104
MW15-20190613 906291-02	<50	<250	93
MW27-20190614 906291-03	<50	<250	93
MW13-20190614 906291-04	<50	<250	89
MW01-20190614 906291-05	<50	<250	95
MW26-20190614 906291-06	<50	<250	101
MW07-20190614 906291-07	<50	<250	110
MW04-20190614 906291-08	<50	<250	102
Method Blank 09-1421 MB	<50	<250	98

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW28-20190613	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/18/19	Lab ID:	906291-01 x10
Date Analyzed:	06/18/19	Data File:	906291-01 x10.123
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	1,100
Manganese	1,140

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW26-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/18/19	Lab ID:	906291-06
Date Analyzed:	06/19/19	Data File:	906291-06.056
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	290
Manganese	62.1

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW07-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/18/19	Lab ID:	906291-07
Date Analyzed:	06/19/19	Data File:	906291-07.045
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	225
Manganese	9.26

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW04-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/18/19	Lab ID:	906291-08
Date Analyzed:	06/19/19	Data File:	906291-08.057
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	327
Manganese	15.9

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/18/19	Lab ID:	I9-375 mb
Date Analyzed:	06/18/19	Data File:	I9-375 mb.095
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50
Manganese	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW28-20190613	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-01
Date Analyzed:	06/19/19	Data File:	061929.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.35
Chloroethane	<1
1,1-Dichloroethene	1.5
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	80
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	5.7
Tetrachloroethene	9.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW15-20190613	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-02
Date Analyzed:	06/19/19	Data File:	061930.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	6.8
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW27-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-03
Date Analyzed:	06/19/19	Data File:	061931.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.3
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	14
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW13-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-04
Date Analyzed:	06/19/19	Data File:	061932.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.1
Tetrachloroethene	7.0

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW01-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-05
Date Analyzed:	06/19/19	Data File:	061933.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW26-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-06
Date Analyzed:	06/19/19	Data File:	061934.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	20
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW07-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-07
Date Analyzed:	06/19/19	Data File:	061935.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	5.9
Tetrachloroethene	3.9

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW04-20190614	Client:	SoundEarth Strategies
Date Received:	06/14/19	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	906291-08
Date Analyzed:	06/19/19	Data File:	061936.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	11
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20190614
Date Extracted:	06/19/19	Lab ID:	09-1432 mb
Date Analyzed:	06/19/19	Data File:	061928.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 906291-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	160	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	108	65-118
Toluene	ug/L (ppb)	50	114	72-122
Ethylbenzene	ug/L (ppb)	50	112	73-126
Xylenes	ug/L (ppb)	150	110	74-118
Gasoline	ug/L (ppb)	1,000	82	69-134

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	88	100	63-142	13

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 906321-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	152	89	85	70-130	5
Manganese	ug/L (ppb)	20	30.6	101	95	70-130	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	99	85-115
Manganese	ug/L (ppb)	20	95	85-115

Date of Report: 06/26/19
Date Received: 06/14/19
Project: SOU_0731-004-05_ 20190614, F&BI 906291

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 906291-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.35	119	36-166
Chloroethane	ug/L (ppb)	50	<1	110	46-160
1,1-Dichloroethene	ug/L (ppb)	50	1.5	108	60-136
Methylene chloride	ug/L (ppb)	50	<5	109	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	110	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	105	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	80	119 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	96	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	110	60-146
Trichloroethene	ug/L (ppb)	50	5.7	98	66-135
Tetrachloroethene	ug/L (ppb)	50	9.0	101	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	113	107	50-154	5
Chloroethane	ug/L (ppb)	50	105	100	58-146	5
1,1-Dichloroethene	ug/L (ppb)	50	103	102	67-136	1
Methylene chloride	ug/L (ppb)	50	102	100	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	106	101	68-128	5
1,1-Dichloroethane	ug/L (ppb)	50	102	100	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	107	105	80-123	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	96	100	73-132	4
1,1,1-Trichloroethane	ug/L (ppb)	50	106	104	81-125	2
Trichloroethene	ug/L (ppb)	50	98	98	79-113	0
Tetrachloroethene	ug/L (ppb)	50	104	103	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

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Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 906291
Work Order Number: 1906196

June 24, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 1 sample(s) on 6/17/2019 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ferrous Iron by SM3500-Fe B
Ion Chromatography by EPA Method 300.0
Total Alkalinity by SM 2320B

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

Date: *06/24/2019*

CLIENT: Friedman & Bruya
Project: 906291
Work Order: 1906196

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1906196-001	MW28-20190613	06/13/2019 3:35 PM	06/17/2019 1:45 PM

Case Narrative

WO#: **1906196**

Date: **6/24/2019**

CLIENT: Friedman & Bruya

Project: 906291

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: **1906196**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/13/2019 3:35:00 PM
Project: 906291
Lab ID: 1906196-001
Matrix: Water
Client Sample ID: **MW28-20190613**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	0.0153	0.00863		mg/L	1	6/19/2019 2:27:00 PM
Ethene	ND	0.0151		mg/L	1	6/19/2019 2:27:00 PM
Ethane	ND	0.0162		mg/L	1	6/19/2019 2:27:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.500	DH	mg/L	5	6/18/2019 2:57:00 PM
Sulfate	2.10	1.50	D	mg/L	5	6/18/2019 2:57:00 PM
NOTES: Diluted due to matrix.						
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	424	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	1.02	0.0500	H	mg/L	1	6/19/2019 5:00:00 PM

Work Order: 1906196
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R52247**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **MBLKW**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031932**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R52247**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **LCSW**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031933**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	104	2.50	100.0	0	104	80	120				

Sample ID: **1906195-001BDUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **BATCH**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031935**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	618	2.50						611.0	1.06	20	

Work Order: 1906196
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ferrous Iron by SM3500-Fe B

Sample ID: **MB-R52165**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **6/19/2019**	RunNo: **52165**
Client ID: **MBLKW**	Batch ID: **R52165**		Analysis Date: **6/19/2019**	SeqNo: **1029999**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.0500									

Sample ID: **LCS-R52165**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/19/2019**	RunNo: **52165**
Client ID: **LCSW**	Batch ID: **R52165**		Analysis Date: **6/19/2019**	SeqNo: **1030000**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.406	0.0500	0.4000	0	101	80	120				

Sample ID: **1906196-001ADUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **6/19/2019**	RunNo: **52165**
Client ID: **MW28-20190613**	Batch ID: **R52165**		Analysis Date: **6/19/2019**	SeqNo: **1030007**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.922	0.0500						1.023	10.4	20	H

Sample ID: **1906196-001AMS**	SampType: **MS**	Units: **mg/L**	Prep Date: **6/19/2019**	RunNo: **52165**
Client ID: **MW28-20190613**	Batch ID: **R52165**		Analysis Date: **6/19/2019**	SeqNo: **1030008**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	66.9	80	120				SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **1906196-001AMSD**	SampType: **MSD**	Units: **mg/L**	Prep Date: **6/19/2019**	RunNo: **52165**
Client ID: **MW28-20190613**	Batch ID: **R52165**		Analysis Date: **6/19/2019**	SeqNo: **1030009**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	67.5	80	120	1.291	0.182	20	SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1906196
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **MB-24947**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **MBLKW**	Batch ID: **24947**		Analysis Date: **6/17/2019**	SeqNo: **1029908**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100									
Sulfate	ND	0.300									

Sample ID: **LCS1-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/17/2019**	SeqNo: **1029909**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.739	0.100	0.7500	0	98.5	90	110				
Sulfate	3.65	0.300	3.750	0	97.4	90	110				

Sample ID: **LCS2-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029925**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.57	0.300	3.750	0	95.2	90	110				

Sample ID: **LCS3-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.55	0.300	3.750	0	94.6	90	110				

Sample ID: **LCS4-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.732	0.100	0.7500	0	97.6	90	110				

Work Order: 1906196
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **LCS4-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029927**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.73	0.300	3.750	0	99.4	90	110				

Sample ID: **1906195-001BDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029933**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100						0		20	H
Sulfate	0.749	0.300						0.7590	1.33	20	

Sample ID: **1906195-001BMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029934**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.787	0.100	0.7500	0.09000	92.9	80	120				H
Sulfate	4.20	0.300	3.750	0.7590	91.8	80	120				

Sample ID: **1906195-001BMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029935**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.784	0.100	0.7500	0.09000	92.5	80	120	0.7870	0.382	20	H
Sulfate	4.18	0.300	3.750	0.7590	91.3	80	120	4.203	0.525	20	

Work Order: 1906196
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **LCS-R52203** SampType: **LCS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **LCSW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,020	0.00863	1,000	0	102	70	130				
Ethene	976	0.0151	1,000	0	97.6	70	130				
Ethane	973	0.0162	1,000	0	97.3	70	130				

Sample ID: **MB-R52203** SampType: **MBLK** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **MBLKW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030679**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: **1906152-001AREP** SampType: **REP** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **BATCH** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030653**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	4.81	0.173						4.601	4.43	30	DE
Ethene	ND	0.303						0		30	D
Ethane	ND	0.324						0		30	D

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1906196**
Logged by:	**Clare Griggs**	Date Received:	**6/17/2019 1:45:00 PM**

Chain of Custody

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

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 >0°C to 10.0°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 ºC
Cooler	9.6
Sample	8.7

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

cg 6/17/19

SUBCONTRACT SAMPLE CHAIN OF CUSTODY ~~1906197~~ 1906196

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont

PROJECT NAME/NO.	PO #
906291	B-297

REMARKS

Please Email Results

TURNAROUND TIME

- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

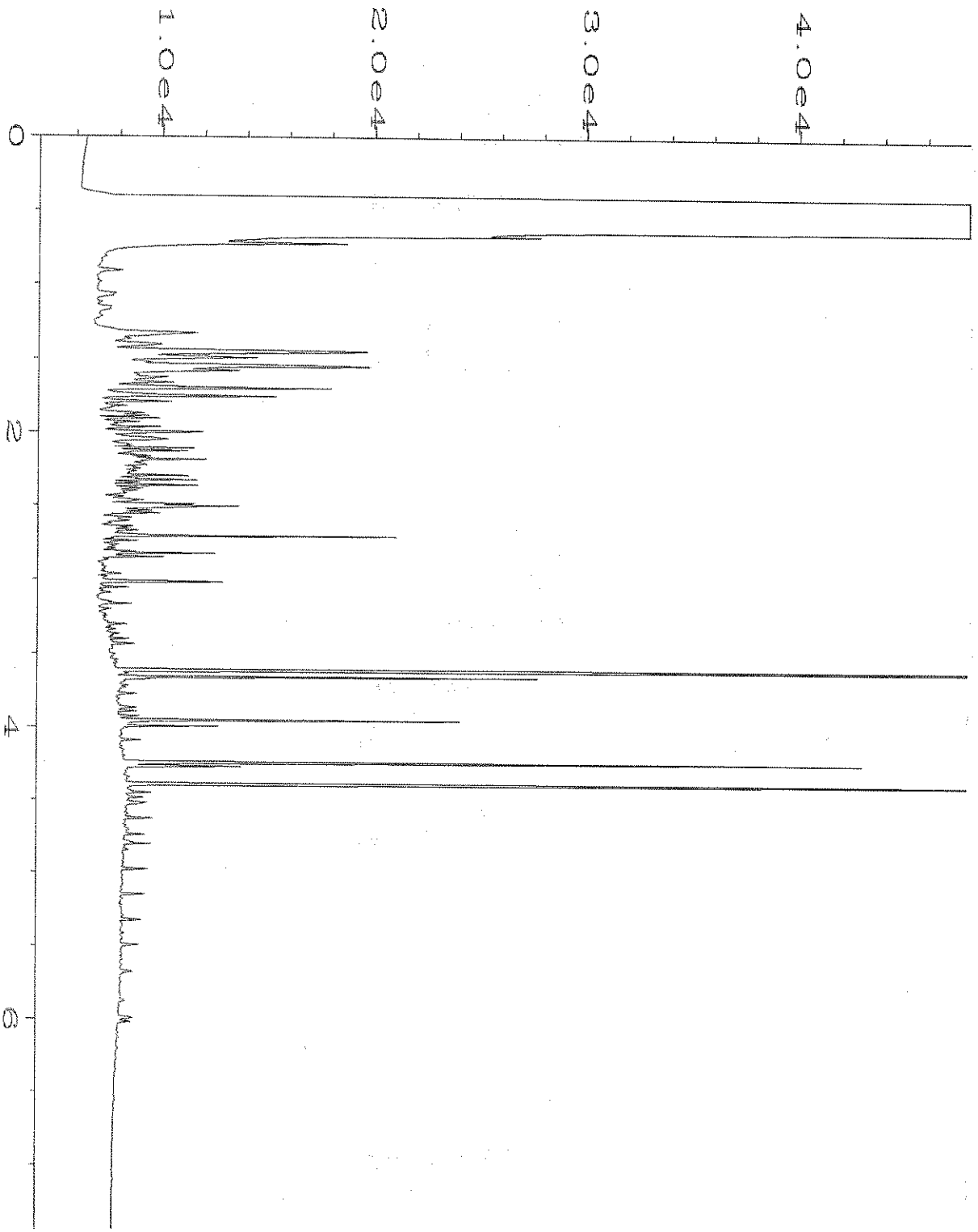
SAMPLE DISPOSAL

- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dioxins/Furans	EPH	VPH	Sulfate	Nitrate	Alkalinity	Ferrous Iron	Methane, Ethane, Ethene GSK			Notes
MW28-20190613		6/13/19	1535	H_2O	5				X	X	X	X	X			

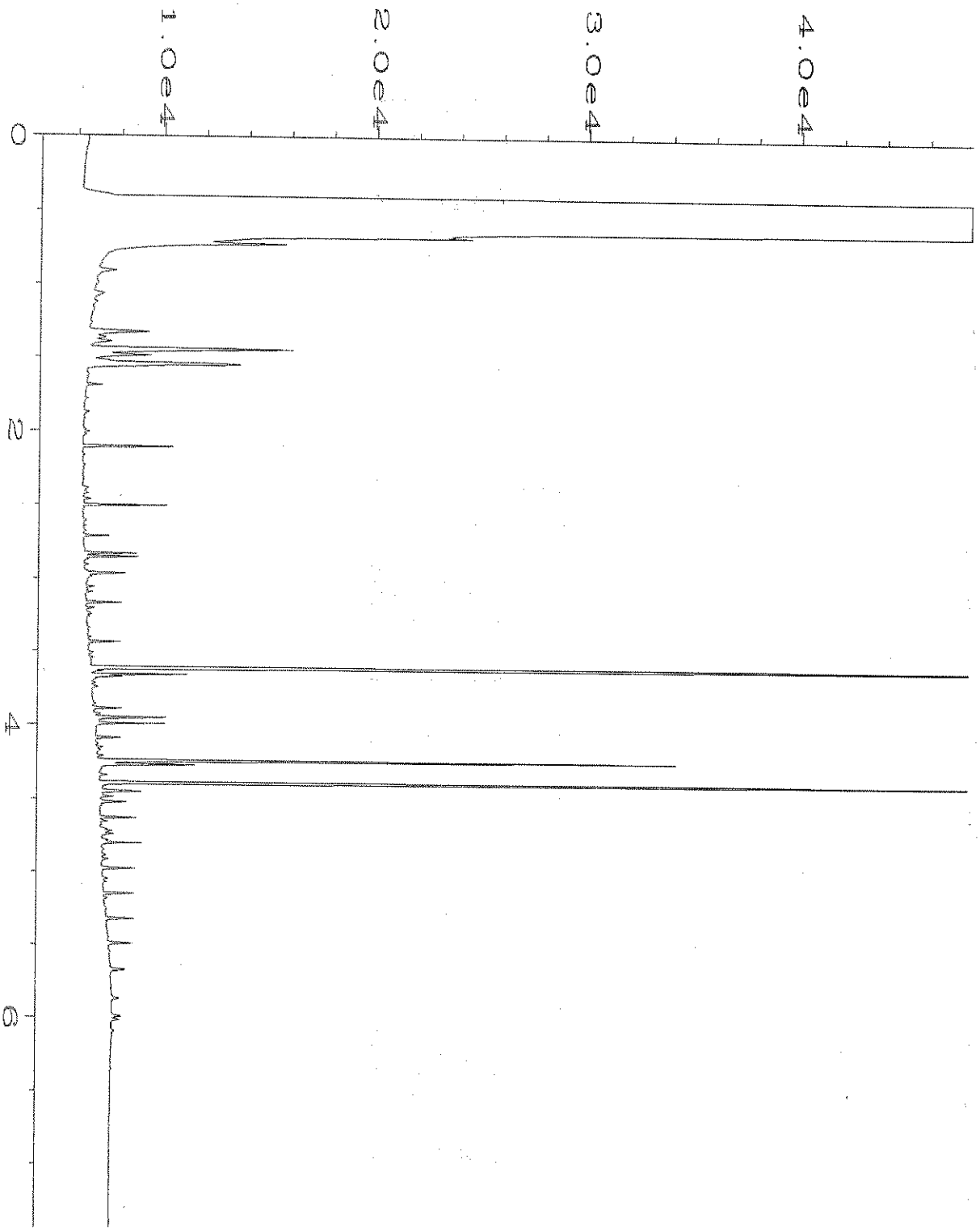
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Michael Erdahl	Friedman & Bruya	6/17/19	
Received by:		FAT	6/17/19	1345
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

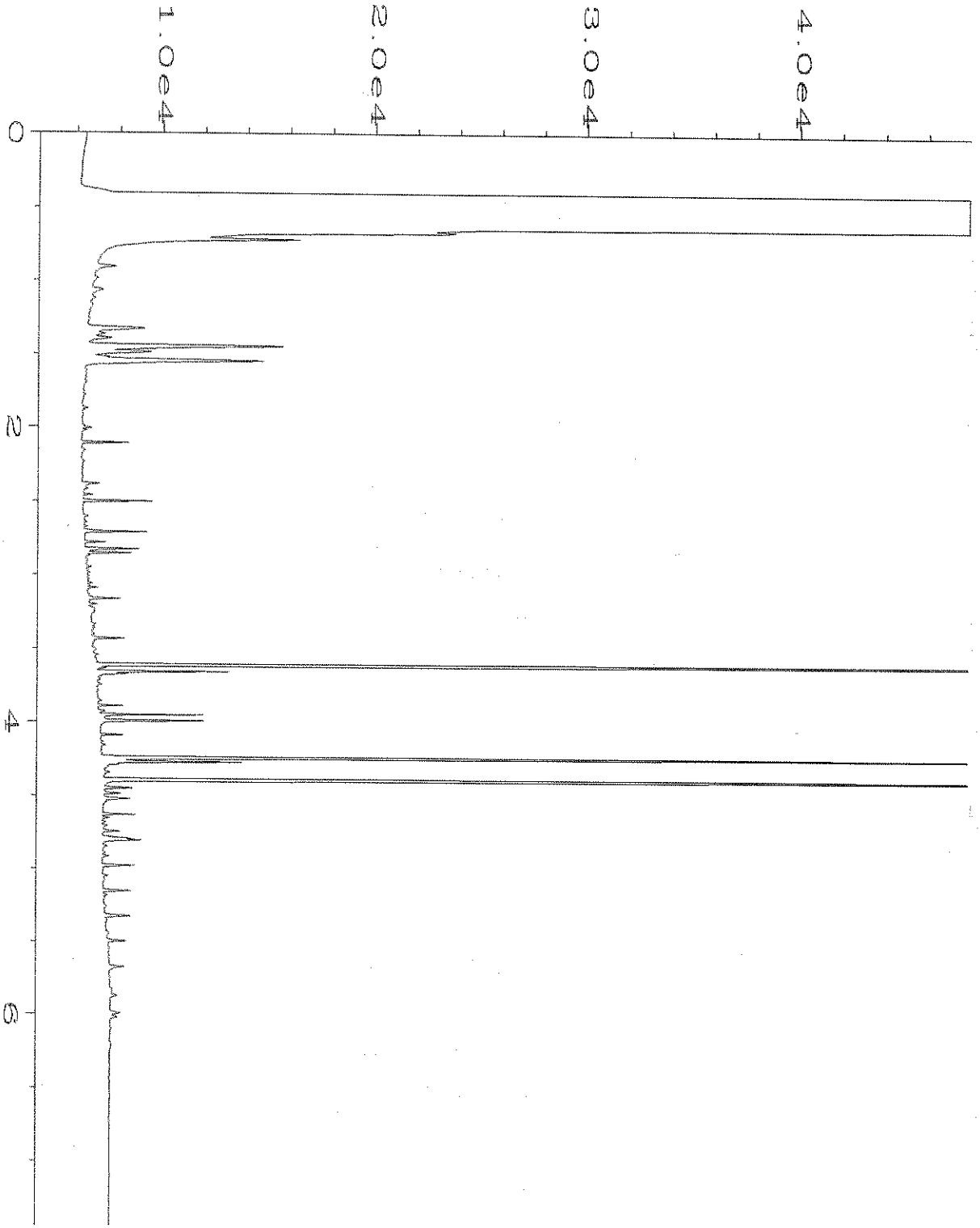


Data File Name : C:\HPCHEM\1\DATA\06-17-19\027F0401.D
Operator : TL
Instrument : GC1
Sample Name : 906291-01
Run Time Bar Code:
Acquired on : 17 Jun 19 01:58 PM
Report Created on: 18 Jun 19 07:04 AM

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

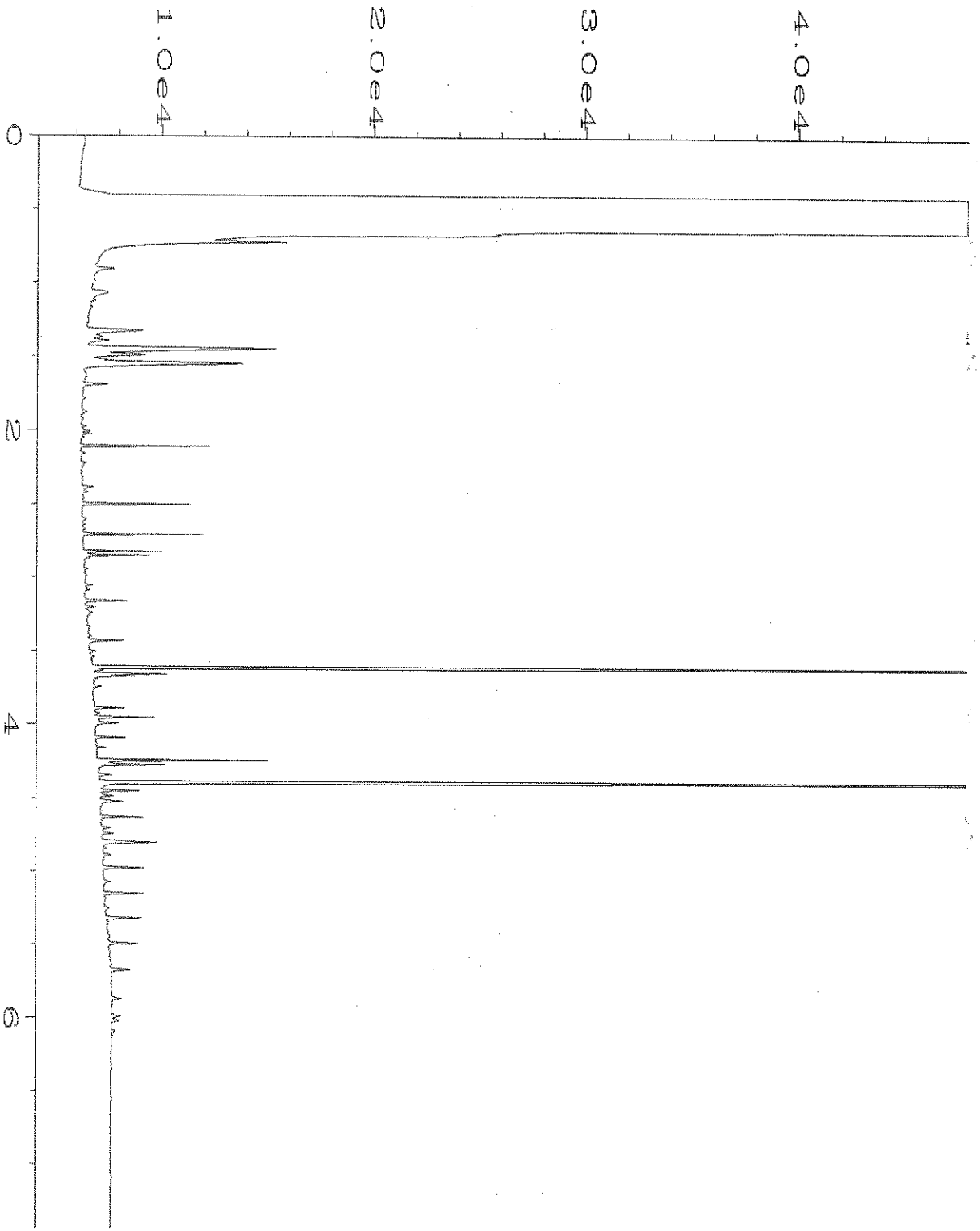


Data File Name	: C:\HPCHEM\1\DATA\06-17-19\028F0401.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 28
Sample Name	: 906291-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 17 Jun 19 02:10 PM	Instrument Method	: DX.MTH
Report Created on	: 18 Jun 19 07:04 AM	Analysis Method	: DEFAULT.MTH



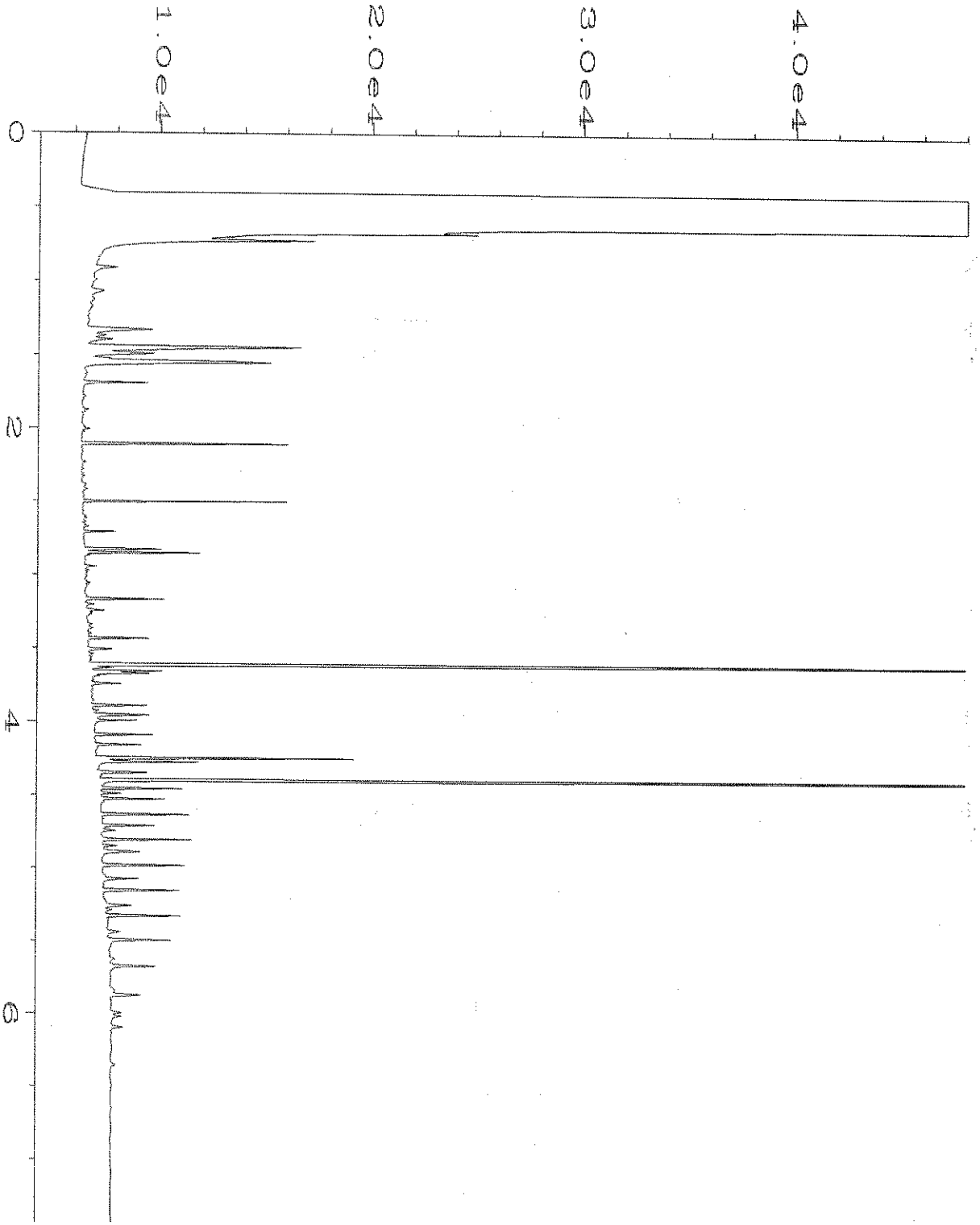
Data File Name : C:\HPCHEM\1\DATA\06-17-19\029F0401.D
Operator : TL
Instrument : GC1
Sample Name : 906291-03
Run Time Bar Code:
Acquired on : 17 Jun 19 02:21 PM
Report Created on: 18 Jun 19 07:04 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

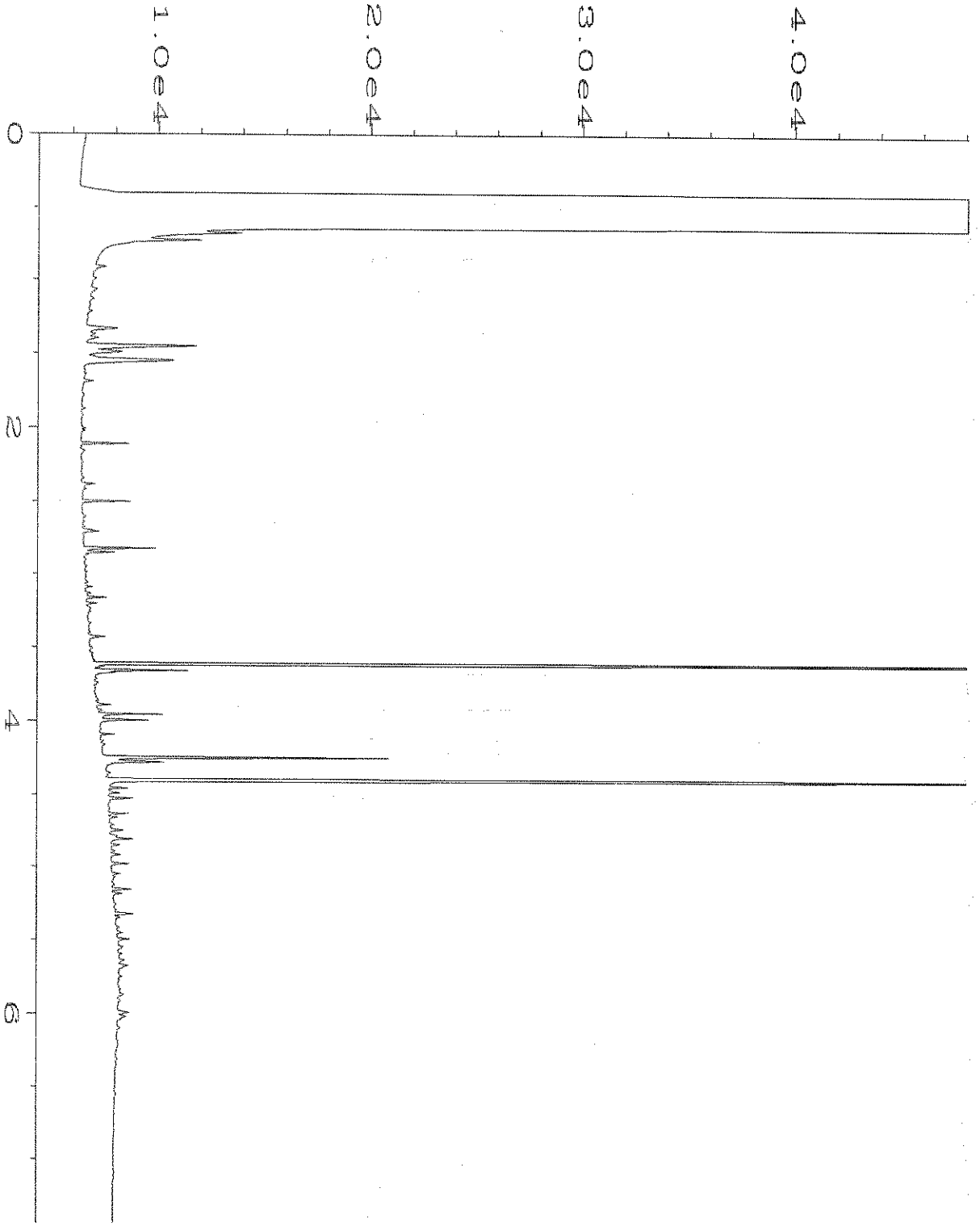


Data File Name : C:\HPCHEM\1\DATA\06-17-19\030F0401.D
Operator : TL
Instrument : GC1
Sample Name : 906291-04
Run Time Bar Code:
Acquired on : 17 Jun 19 02:33 PM
Report Created on: 18 Jun 19 07:05 AM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

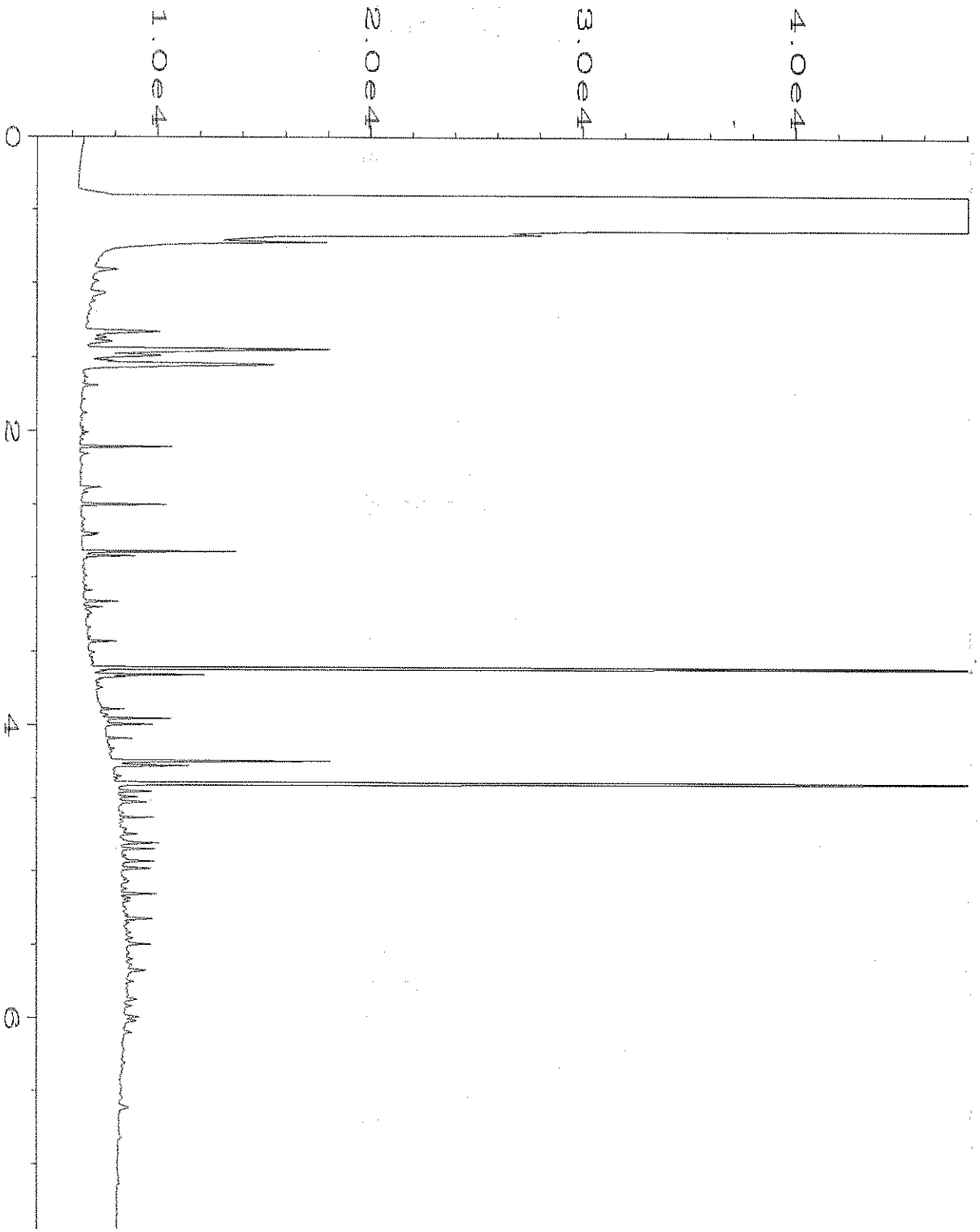


Data File Name	: C:\HPCHEM\1\DATA\06-17-19\031F0601.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 31
Sample Name	: 906291-05	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 17 Jun 19 03:53 PM	Instrument Method	: DX.MTH
Report Created on	: 18 Jun 19 07:05 AM	Analysis Method	: DEFAULT.MTH

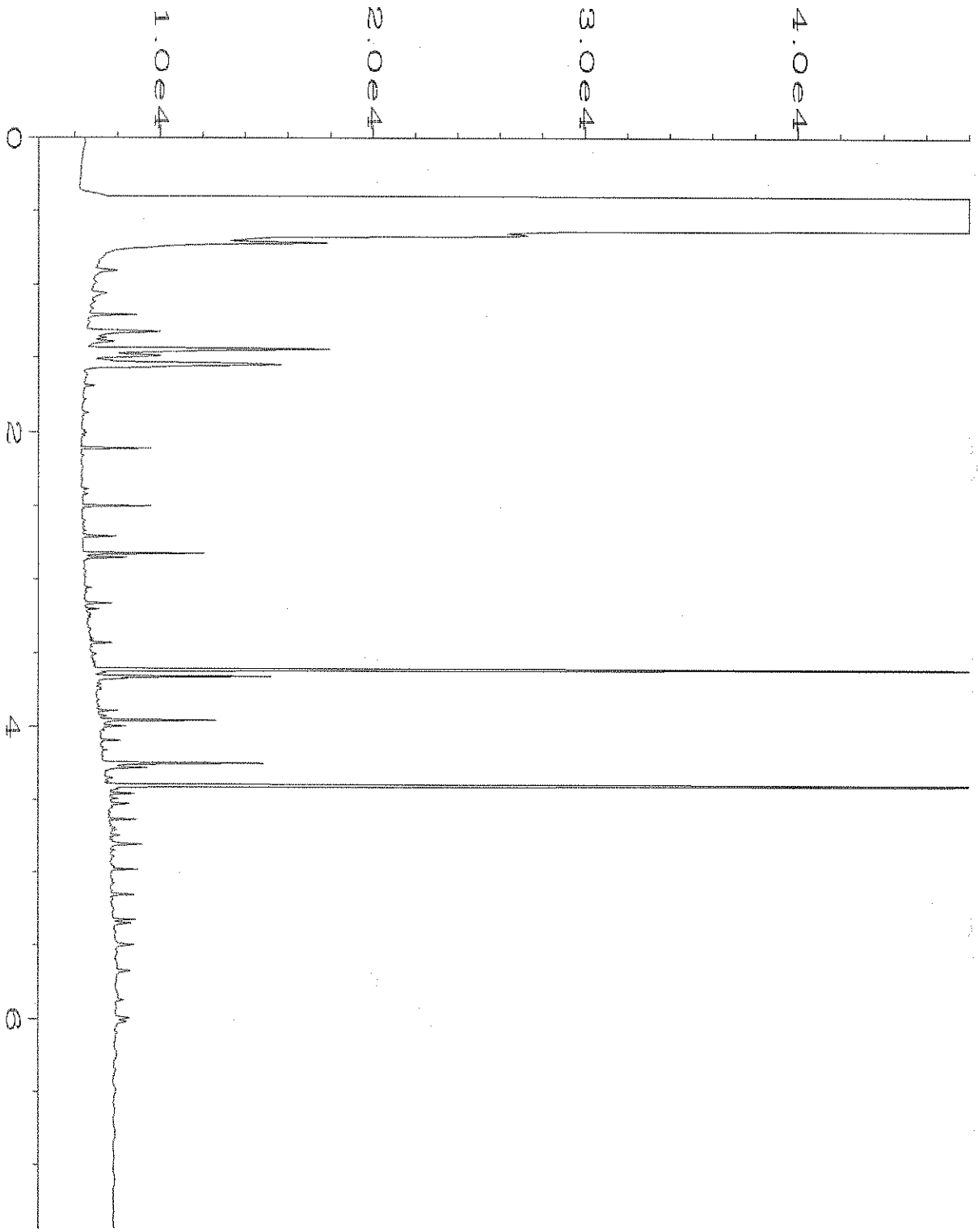


Data File Name : C:\HPCHEM\1\DATA\06-17-19\032F0601.D
Operator : TL
Instrument : GC1
Sample Name : 906291-06
Run Time Bar Code:
Acquired on : 17 Jun 19 04:04 PM
Report Created on: 18 Jun 19 07:05 AM

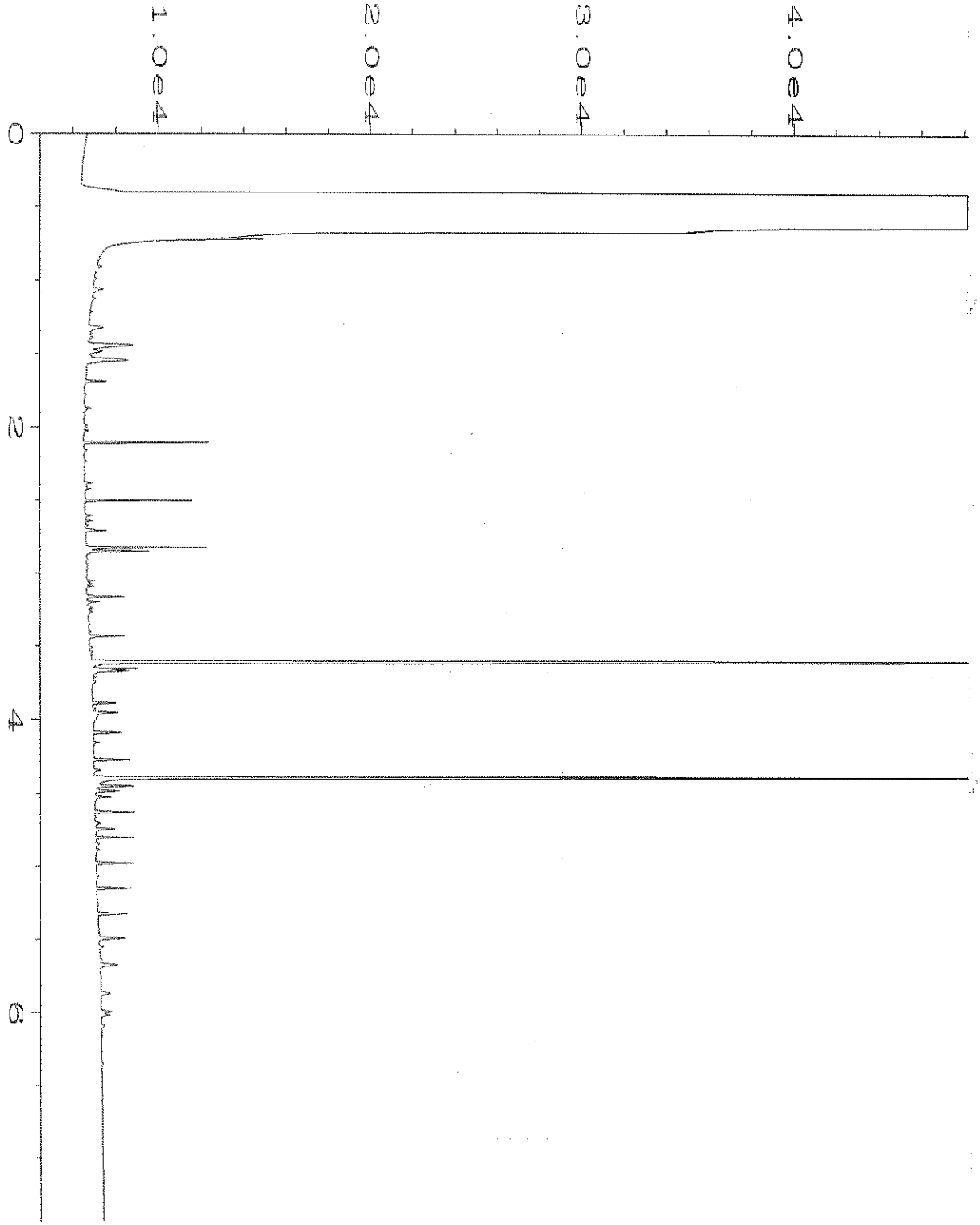
Page Number : 1
Vial Number : 32
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



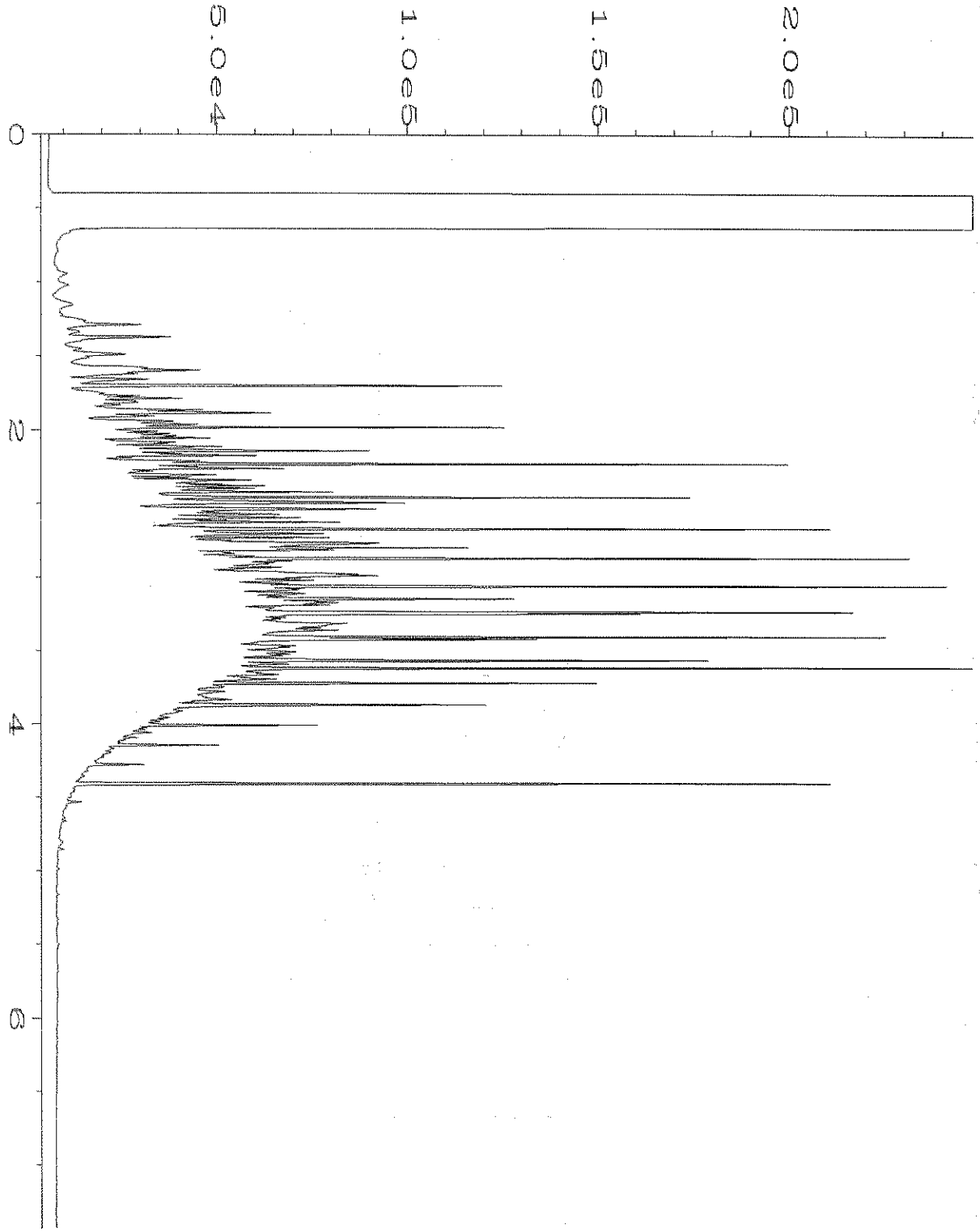
Data File Name	: C:\HPCHEM\1\DATA\06-17-19\033F0601.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 33
Sample Name	: 906291-07	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 17 Jun 19 04:16 PM	Instrument Method	: DX.MTH
Report Created on	: 18 Jun 19 07:05 AM	Analysis Method	: DEFAULT.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-17-19\034F0601.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 34
Sample Name	: 906291-08	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 17 Jun 19 04:28 PM	Instrument Method	: DX.MTH
Report Created on:	18 Jun 19 07:06 AM	Analysis Method	: DEFAULT.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-17-19\019F0401.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 19
Sample Name	: 09-1421 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 17 Jun 19 12:24 PM	Instrument Method	: DX.MTH
Report Created on:	18 Jun 19 07:06 AM	Analysis Method	: DEFAULT.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-17-19\005F0501.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 5
Sample Name	: 1000 Dx 57-78B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 17 Jun 19 03:39 PM	Instrument Method	: DX.MTH
Report Created on:	18 Jun 19 07:06 AM	Analysis Method	: DEFAULT.MTH

906291

SAMPLE CHAIN OF CUSTODY

ME 06-14-19

Page # 1 of 1

VW3

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) Sarah Welter

PROJECT NAME/NO. Troy Laundry Property

PO # 0731-004-05

REMARKS

EIM Y

TURNAROUND TIME

Standard (2 Weeks) BOS

RUSH AI B

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW28-20190613	MW28	–	01A-M	6/13/19	1535	W	15	X	X	X	X	X	X	X	X		
MW15-20190613	MW15	–	02A-H	6/13/19	1640		7	X	X	X	X						
MW27-20190614	MW27	–	03	6/14/19	0830		7	X	X	X	X						
MW13-20190614	MW13	–	04	6/14/19	0855		7	X	X	X	X						
MW01-20190614	MW01	–	05	6/14/19	0938		7	X	X	X	X						
MW26-20190614	MW26	–	06A-M	6/14/19	0950		14	X	X	X	X	X	X	X	X	X	
MW07-20190614	MW07	–	07	6/14/19	1050		14	X	X	X	X	X	X	X	X	X	
MW04-20190614	MW04	–	08A-M	6/14/19	1105		15	X	X	X	X	X	X	X	X		

SM

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	6/14/19	1419
Received by:		WILSON VANEGAS	FEDEX	6-14-19	1419
Relinquished by:					
Received by:		Nhan Phan	FCBI	6/14/19	1456

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 26, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on June 17, 2019 from the SOU_0731-004-05_ 20190617, F&BI 906323 project. There are 27 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0626R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 17, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-05_ 20190617, F&BI 906323 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
906323 -01	MW25-20190615
906323 -02	MW19-20190615
906323 -03	MW18-20190615
906323 -04	MW17-20190615
906323 -05	MW24-20190615
906323 -06	MW20-20190615
906323 -07	MW21-20190615
906323 -08	MW99-20190615
906323 -09	MW22-20190615
906323 -10	MW23-20190615
906323 -11	IW91-20190615

Samples MW25-20190615, MW19-20190615, MW18-20190615, MW24-20190615, MW22-20190615, and MW23-20190615 were sent to Fremont Analytical for nitrate, sulfate, alkalinity, TOC, and ferrous iron analysis. In addition, samples MW25-20190615, MW19-20190615, MW18-20190615, MW24-20190615, MW21-20190615, MW22-20190615, and MW23-20190615 were sent to Fremont for dissolved gasses analysis. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323
Date Extracted: 06/18/19
Date Analyzed: 06/18/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW25-20190615 906323-01	<1	<1	<1	<3	<100	103
MW19-20190615 906323-02	<1	<1	<1	<3	<100	103
MW18-20190615 906323-03	<1	<1	<1	<3	<100	102
MW17-20190615 906323-04	<1	<1	<1	<3	<100	103
MW24-20190615 906323-05	<1	<1	<1	<3	<100	102
MW20-20190615 906323-06	<1	<1	<1	<3	<100	103
MW21-20190615 906323-07	<1	<1	<1	3.8	<100	102
MW99-20190615 906323-08	<1	<1	<1	<3	<100	103
MW22-20190615 906323-09	<1	<1	<1	21	170	106
MW23-20190615 906323-10	<1	<1	<1	7.1	260	106
IW91-20190615 906323-11	<1	<1	<1	<3	<100	103
Method Blank 09-1406 MB	<1	<1	<1	<3	<100	104

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323
Date Extracted: 06/18/19
Date Analyzed: 06/18/19 and 06/21/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW25-20190615 906323-01 1/10	1,000 x	<2,500	100
MW19-20190615 906323-02	650 x	430 x	83
MW18-20190615 906323-03	1,100 x	830 x	ip
MW17-20190615 906323-04	<50	<250	87
MW24-20190615 906323-05 1/10	6,400 x	<2,500	84
MW20-20190615 906323-06	140 x	<250	110
MW21-20190615 906323-07 1/10	6,400 x	<2,500	80
MW99-20190615 906323-08 1/10	1,100 x	<2,500	105
MW22-20190615 906323-09 1/10	24,000 x	4,600 x	75
MW23-20190615 906323-10 1/10	3,400 x	<2,500	ip
IW91-20190615 906323-11	<50	<250	ip
Method Blank 09-1428 MB	<50	<250	108

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW25-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-01 x10
Date Analyzed:	06/18/19	Data File:	906323-01 x10.111
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	12,300
Manganese	9,560

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW19-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-02 x20
Date Analyzed:	06/19/19	Data File:	906323-02 x20.039
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	10,000
Manganese	11,400

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW18-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-03 x20
Date Analyzed:	06/19/19	Data File:	906323-03 x20.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	13,500
Manganese	10,100

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW24-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-05 x100
Date Analyzed:	06/19/19	Data File:	906323-05 x100.050
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	11,600
Manganese	21,900

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW22-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-09 x20
Date Analyzed:	06/19/19	Data File:	906323-09 x20.042
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	11,200
Manganese	11,400

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW23-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906323-10 x100
Date Analyzed:	06/19/19	Data File:	906323-10 x100.051
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	12,300
Manganese	26,700

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	I9-375 mb
Date Analyzed:	06/18/19	Data File:	I9-375 mb.095
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50
Manganese	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW25-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-01
Date Analyzed:	06/19/19	Data File:	061937.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.54
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	45
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW19-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-02
Date Analyzed:	06/19/19	Data File:	061938.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.79
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	27
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW18-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-03
Date Analyzed:	06/19/19	Data File:	061939.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.44
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	28
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW17-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-04
Date Analyzed:	06/19/19	Data File:	061940.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.4
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW24-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-05
Date Analyzed:	06/19/19	Data File:	061941.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	84
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW20-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-06
Date Analyzed:	06/19/19	Data File:	061942.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	3.8
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW21-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-07
Date Analyzed:	06/19/19	Data File:	061943.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	29
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW99-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-08
Date Analyzed:	06/19/19	Data File:	061944.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.50
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	43
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW22-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-09
Date Analyzed:	06/19/19	Data File:	061945.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	49
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.1
Tetrachloroethene	1.1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW23-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-10
Date Analyzed:	06/19/19	Data File:	061946.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.72
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	25
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW91-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906323-11
Date Analyzed:	06/19/19	Data File:	061947.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	92	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	09-1432 mb
Date Analyzed:	06/19/19	Data File:	061928.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 906323-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	107	65-118
Toluene	ug/L (ppb)	50	108	72-122
Ethylbenzene	ug/L (ppb)	50	112	73-126
Xylenes	ug/L (ppb)	150	110	74-118
Gasoline	ug/L (ppb)	1,000	98	69-134

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	100	61-133	4

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 906321-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	152	89	85	70-130	5
Manganese	ug/L (ppb)	20	30.6	101	95	70-130	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	99	85-115
Manganese	ug/L (ppb)	20	95	85-115

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 906291-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.35	119	36-166
Chloroethane	ug/L (ppb)	50	<1	110	46-160
1,1-Dichloroethene	ug/L (ppb)	50	1.5	108	60-136
Methylene chloride	ug/L (ppb)	50	<5	109	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	110	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	105	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	80	119 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	96	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	110	60-146
Trichloroethene	ug/L (ppb)	50	5.7	98	66-135
Tetrachloroethene	ug/L (ppb)	50	9.0	101	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	113	107	50-154	5
Chloroethane	ug/L (ppb)	50	105	100	58-146	5
1,1-Dichloroethene	ug/L (ppb)	50	103	102	67-136	1
Methylene chloride	ug/L (ppb)	50	102	100	39-148	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	106	101	68-128	5
1,1-Dichloroethane	ug/L (ppb)	50	102	100	79-121	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	107	105	80-123	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	96	100	73-132	4
1,1,1-Trichloroethane	ug/L (ppb)	50	106	104	81-125	2
Trichloroethene	ug/L (ppb)	50	98	98	79-113	0
Tetrachloroethene	ug/L (ppb)	50	104	103	76-121	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

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Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 906323
Work Order Number: 1906197

June 24, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 7 sample(s) on 6/17/2019 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ferrous Iron by SM3500-Fe B
Ion Chromatography by EPA Method 300.0
Total Alkalinity by SM 2320B
Total Organic Carbon by SM 5310C

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

Date: *06/24/2019*

CLIENT: Friedman & Bruya
Project: 906323
Work Order: 1906197

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1906197-001	MW25-20190615	06/15/2019 8:18 AM	06/17/2019 1:45 PM
1906197-002	MW19-20190615	06/15/2019 8:24 AM	06/17/2019 1:45 PM
1906197-003	MW18-20190615	06/15/2019 9:35 AM	06/17/2019 1:45 PM
1906197-004	MW24-20190615	06/15/2019 11:20 AM	06/17/2019 1:45 PM
1906197-005	MW21-20190615	06/15/2019 12:32 PM	06/17/2019 1:45 PM
1906197-006	MW22-20190615	06/15/2019 1:10 PM	06/17/2019 1:45 PM
1906197-007	MW23-20190615	06/15/2019 2:10 PM	06/17/2019 1:45 PM

Case Narrative

WO#: **1906197**

Date: **6/24/2019**

CLIENT: Friedman & Bruya

Project: 906323

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: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 8:18:00 AM
Project: 906323
Lab ID: 1906197-001
Matrix: Water
Client Sample ID: **MW25-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	9.67	0.173	DE	mg/L	20	6/19/2019 5:10:00 PM
Ethene	ND	0.303	D	mg/L	20	6/19/2019 5:10:00 PM
Ethane	ND	0.324	D	mg/L	20	6/19/2019 5:10:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 4:53:00 PM
Sulfate	0.380	0.300	H	mg/L	1	6/18/2019 4:53:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	25.8	0.500		mg/L	1	6/18/2019 7:49:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	575	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	7.60	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 8:24:00 AM
Project: 906323
Lab ID: 1906197-002
Matrix: Water
Client Sample ID: **MW19-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	2.53	0.173	D	mg/L	20	6/19/2019 5:14:00 PM
Ethene	ND	0.303	D	mg/L	20	6/19/2019 5:14:00 PM
Ethane	ND	0.324	D	mg/L	20	6/19/2019 5:14:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 5:16:00 PM
Sulfate	0.380	0.300	H	mg/L	1	6/18/2019 5:16:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	556	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	7.81	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 9:35:00 AM
Project: 906323
Lab ID: 1906197-003
Matrix: Water
Client Sample ID: **MW18-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	5.29	0.432	D	mg/L	50	6/19/2019 5:16:00 PM
Ethene	ND	0.757	D	mg/L	50	6/19/2019 5:16:00 PM
Ethane	ND	0.809	D	mg/L	50	6/19/2019 5:16:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 5:39:00 PM
Sulfate	0.422	0.300	H	mg/L	1	6/18/2019 5:39:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	10.6	0.500		mg/L	1	6/18/2019 9:05:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	531	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	8.35	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 11:20:00 AM
Project: 906323
Lab ID: 1906197-004
Matrix: Water
Client Sample ID: **MW24-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	2.66	0.432	D	mg/L	50	6/19/2019 5:18:00 PM
Ethene	ND	0.757	D	mg/L	50	6/19/2019 5:18:00 PM
Ethane	ND	0.809	D	mg/L	50	6/19/2019 5:18:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 6:03:00 PM
Sulfate	0.348	0.300	H	mg/L	1	6/18/2019 6:03:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	20.5	0.500		mg/L	1	6/18/2019 9:24:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	414	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	11.1	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 12:32:00 PM
Project: 906323
Lab ID: 1906197-005
Matrix: Water
Client Sample ID: **MW21-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	2.46	0.432	D	mg/L	50	6/19/2019 5:25:00 PM
Ethene	ND	0.757	D	mg/L	50	6/19/2019 5:25:00 PM
Ethane	ND	0.809	D	mg/L	50	6/19/2019 5:25:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	163	2.50	D	mg/L	5	6/19/2019 11:36:00 AM

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 1:10:00 PM
Project: 906323
Lab ID: 1906197-006
Matrix: Water
Client Sample ID: **MW22-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	3.09	0.432	D	mg/L	50	6/19/2019 5:27:00 PM
Ethene	ND	0.757	D	mg/L	50	6/19/2019 5:27:00 PM
Ethane	ND	0.809	D	mg/L	50	6/19/2019 5:27:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 6:26:00 PM
Sulfate	ND	0.300	H	mg/L	1	6/18/2019 6:26:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	286	25.0	D	mg/L	50	6/19/2019 11:57:00 AM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	273	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	11.6	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906197**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 2:10:00 PM
Project: 906323
Lab ID: 1906197-007
Matrix: Water
Client Sample ID: **MW23-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	2.90	0.432	D	mg/L	50	6/19/2019 5:30:00 PM
Ethene	ND	0.757	D	mg/L	50	6/19/2019 5:30:00 PM
Ethane	ND	0.809	D	mg/L	50	6/19/2019 5:30:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 6:49:00 PM
Sulfate	0.378	0.300	H	mg/L	1	6/18/2019 6:49:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	60.7	1.00	D	mg/L	2	6/19/2019 12:29:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	639	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	13.0	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R52247**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **MBLKW**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031932**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R52247**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **LCSW**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031933**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	104	2.50	100.0	0	104	80	120				

Sample ID: **1906195-001BDUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **6/21/2019**	RunNo: **52247**
Client ID: **BATCH**	Batch ID: **R52247**		Analysis Date: **6/21/2019**	SeqNo: **1031935**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	618	2.50						611.0	1.06	20	

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Ferrous Iron by SM3500-Fe B

Sample ID: **MB-R52165** SampType: **MBLK** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **MBLKW** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1029999**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.0500									

Sample ID: **LCS-R52165** SampType: **LCS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **LCSW** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030000**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.406	0.0500	0.4000	0	101	80	120				

Sample ID: **1906196-001ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030007**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.922	0.0500						1.023	10.4	20	H

Sample ID: **1906196-001AMS** SampType: **MS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030008**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	66.9	80	120				SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **1906196-001AMSD** SampType: **MSD** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030009**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	67.5	80	120	1.291	0.182	20	SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **MB-24947**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **MBLKW**	Batch ID: **24947**		Analysis Date: **6/17/2019**	SeqNo: **1029908**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100									
Sulfate	ND	0.300									

Sample ID: **LCS1-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/17/2019**	SeqNo: **1029909**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.739	0.100	0.7500	0	98.5	90	110				
Sulfate	3.65	0.300	3.750	0	97.4	90	110				

Sample ID: **LCS2-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029925**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.57	0.300	3.750	0	95.2	90	110				

Sample ID: **LCS3-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029926**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.55	0.300	3.750	0	94.6	90	110				

Sample ID: **LCS4-24947**	SampType: **LCS**	Units: **mg/L**	Prep Date: **6/17/2019**	RunNo: **52162**
Client ID: **LCSW**	Batch ID: **24947**		Analysis Date: **6/18/2019**	SeqNo: **1029927**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.732	0.100	0.7500	0	97.6	90	110				

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **LCS4-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029927**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.73	0.300	3.750	0	99.4	90	110				

Sample ID: **1906195-001BDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029933**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100						0		20	H
Sulfate	0.749	0.300						0.7590	1.33	20	

Sample ID: **1906195-001BMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029934**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.787	0.100	0.7500	0.09000	92.9	80	120				H
Sulfate	4.20	0.300	3.750	0.7590	91.8	80	120				

Sample ID: **1906195-001BMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **BATCH**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029935**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.784	0.100	0.7500	0.09000	92.5	80	120	0.7870	0.382	20	H
Sulfate	4.18	0.300	3.750	0.7590	91.3	80	120	4.203	0.525	20	

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MBLK-52199**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **MBLKW**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030537**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.500									

Sample ID: **LCS-52199**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **LCSW**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030538**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.14	0.500	5.000	0	103	80	120				

Sample ID: **1906179-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030540**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.14	0.500						1.129	0.618	20	

Sample ID: **1906179-001DMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030541**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.48	0.500	5.000	1.129	107	70	130				

Sample ID: **1906179-001DMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030542**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.28	0.500	5.000	1.129	103	70	130	6.478	3.02	30	

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **1906197-001DDUP**	SampType: **DUP**	Units: **mg/L**	Prep Date: **6/18/2019**	RunNo: **52199**
Client ID: **MW25-20190615**	Batch ID: **R52199**		Analysis Date: **6/18/2019**	SeqNo: **1030549**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	26.0	0.500						25.77	0.927	20	

Sample ID: **1906197-001DMS**	SampType: **MS**	Units: **mg/L**	Prep Date: **6/18/2019**	RunNo: **52199**
Client ID: **MW25-20190615**	Batch ID: **R52199**		Analysis Date: **6/18/2019**	SeqNo: **1030550**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	31.0	0.500	5.000	25.77	104	70	130				

Work Order: 1906197
CLIENT: Friedman & Bruya
Project: 906323

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **LCS-R52203** SampType: **LCS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **LCSW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,020	0.00863	1,000	0	102	70	130				
Ethene	976	0.0151	1,000	0	97.6	70	130				
Ethane	973	0.0162	1,000	0	97.3	70	130				

Sample ID: **MB-R52203** SampType: **MBLK** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **MBLKW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030679**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: **1906152-001AREP** SampType: **REP** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **BATCH** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030653**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	4.81	0.173						4.601	4.43	30	ED
Ethene	ND	0.303						0		30	D
Ethane	ND	0.324						0		30	D

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1906197**
Logged by:	**Clare Griggs**	Date Received:	**6/17/2019 1:45:00 PM**

Chain of Custody

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

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 >0°C to 10.0°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 ºC
Cooler	9.6
Sample	8.7

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1906197

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Sound

PROJECT NAME/NO. 906323

PO # B-297

REMARKS

Please Email Results

Page # 1 of 1

TURNAROUND TIME

☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

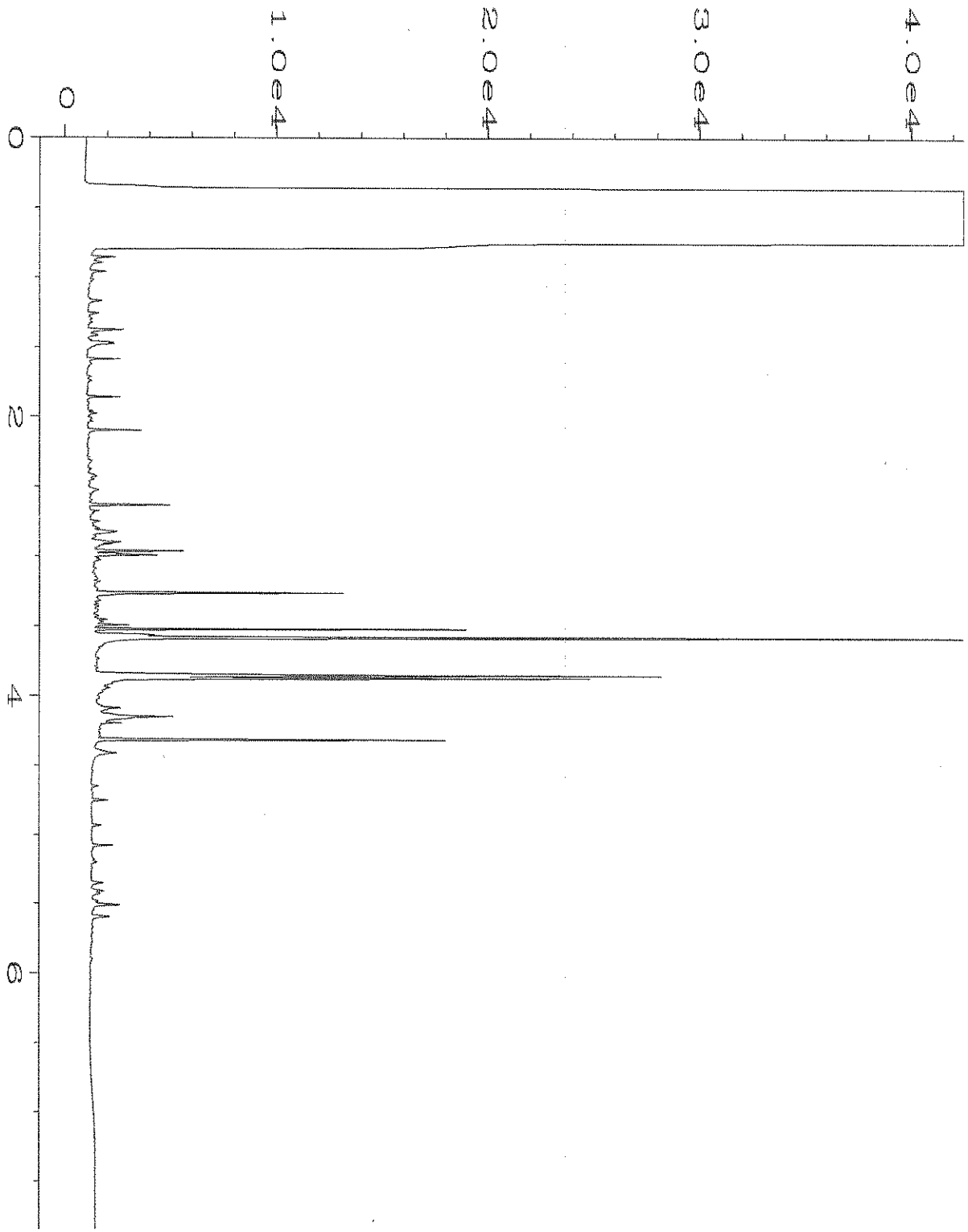
SAMPLE DISPOSAL

☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

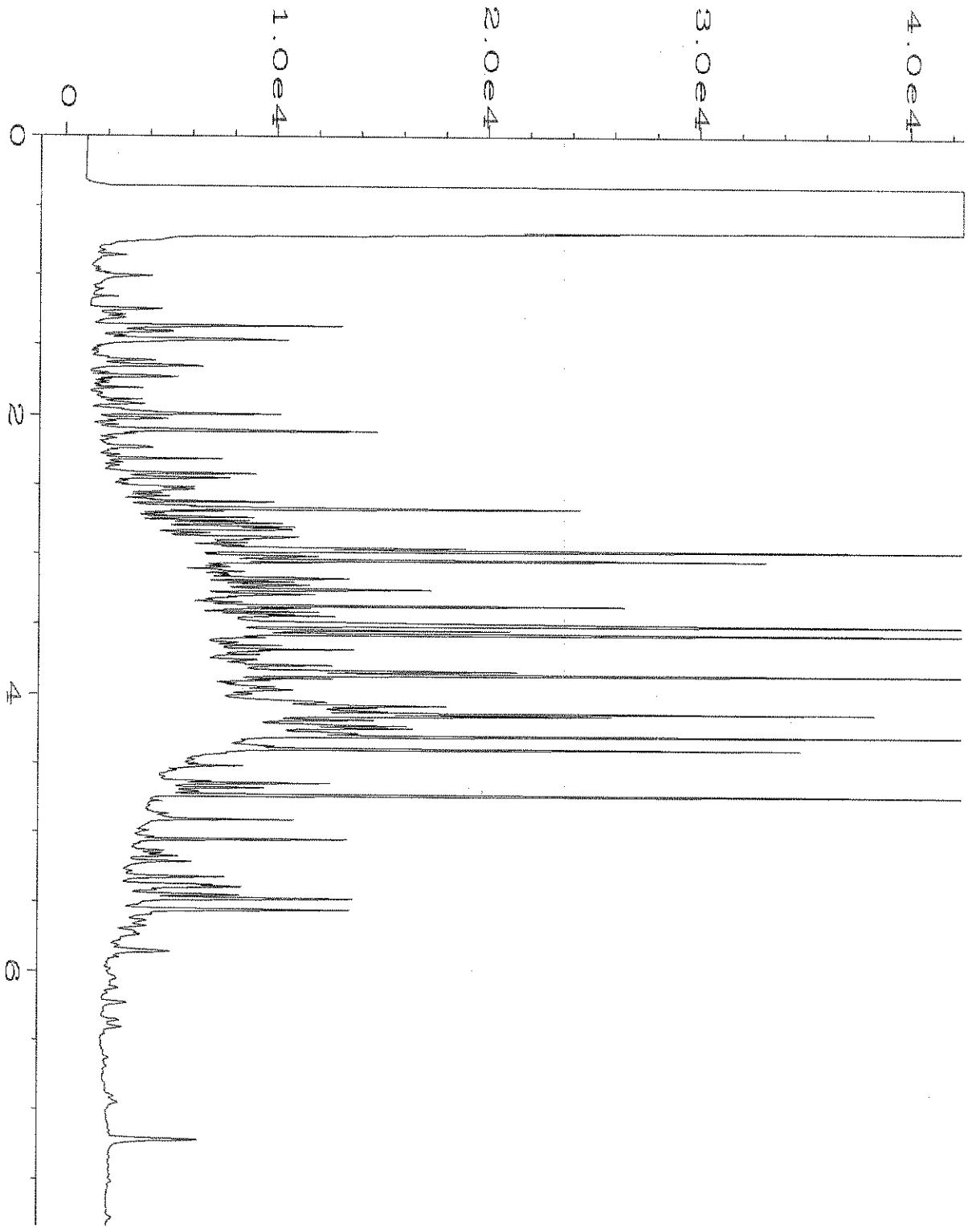
Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	Dioxins/Furans	EPH	VPH	RSK 175 Methane, Ethane, Ethene	Sulfate, Nitrate Alkalinity	Ferrous Iron	TOC				Notes
MW25-20190615		6/15/19	6/15 0818	H_2O					X	X	X	X				
MW19-20190615			0824						X	X	X					
MW18-20190615			0935						X	X	X	X				
MW24-20190615			1120						X	X	X	X				
MW21-20190615			1232						X			X				
MW22-20190615			1310						X	X	X	X				
MW23-20190615			1410						X	X	X	X				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Michael Erdahl	Friedman & Bruya	6/17/19	12:10
Received by: [signature]	C Gilbert	FAI	6/17/19	1345
Relinquished by:				
Received by:				

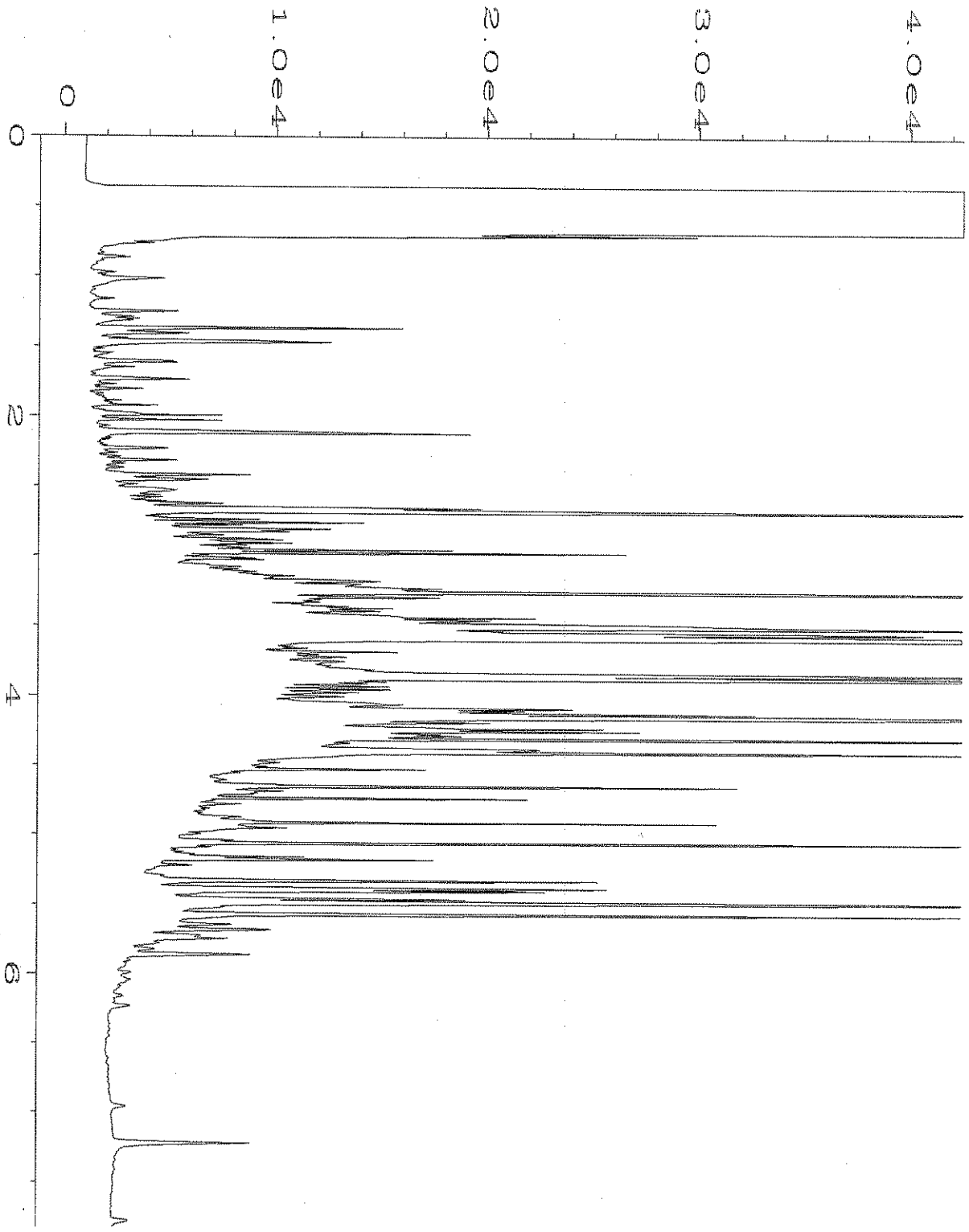


Data File Name	: C:\HPCHEM\4\DATA\06-18-19\024F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 24
Sample Name	: 906323-01 1/10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 18 Jun 19 06:32 PM	Instrument Method	: DX.MTH
Report Created on	: 19 Jun 19 09:36 AM	Analysis Method	: DEFAULT.MTH

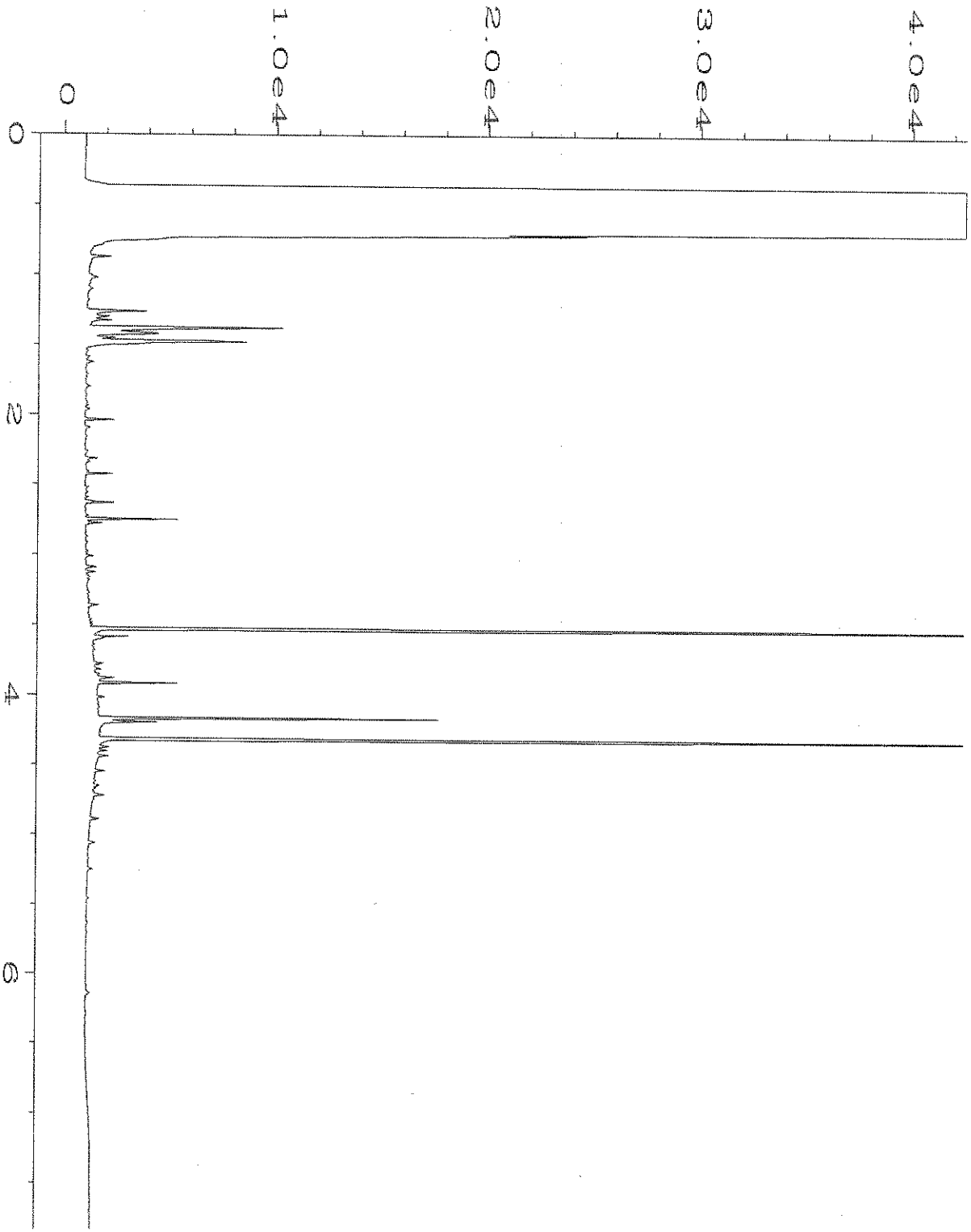


Data File Name : C:\HPCHEM\4\DATA\06-21-19\029F0701.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-02 fs
Run Time Bar Code:
Acquired on : 21 Jun 19 04:44 PM
Report Created on: 24 Jun 19 08:29 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

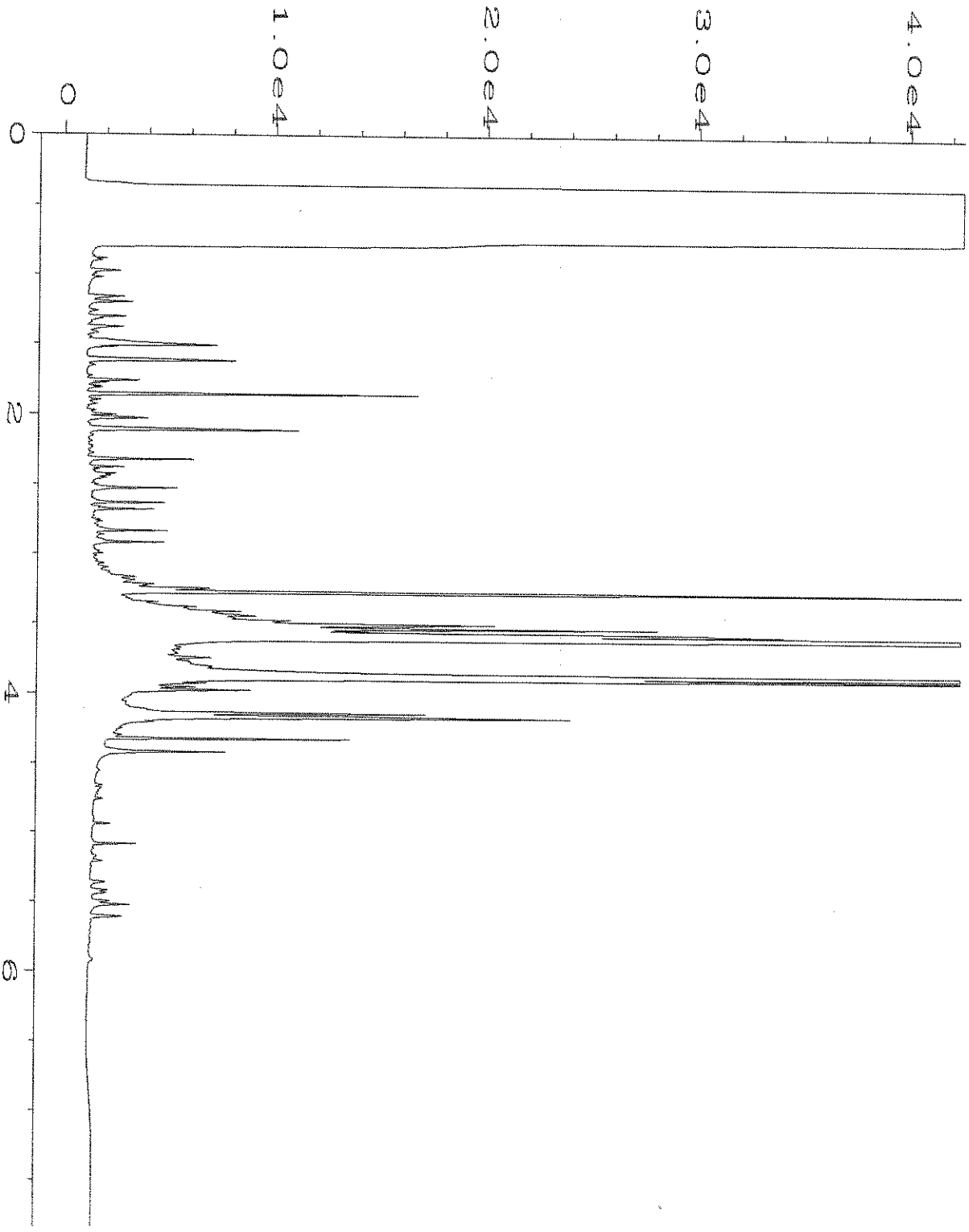


Data File Name	: C:\HPCHEM\4\DATA\06-21-19\030F0701.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 30
Sample Name	: 906323-03 fs	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 21 Jun 19 04:55 PM	Instrument Method	: DX.MTH
Report Created on	: 24 Jun 19 08:29 AM	Analysis Method	: DEFAULT.MTH

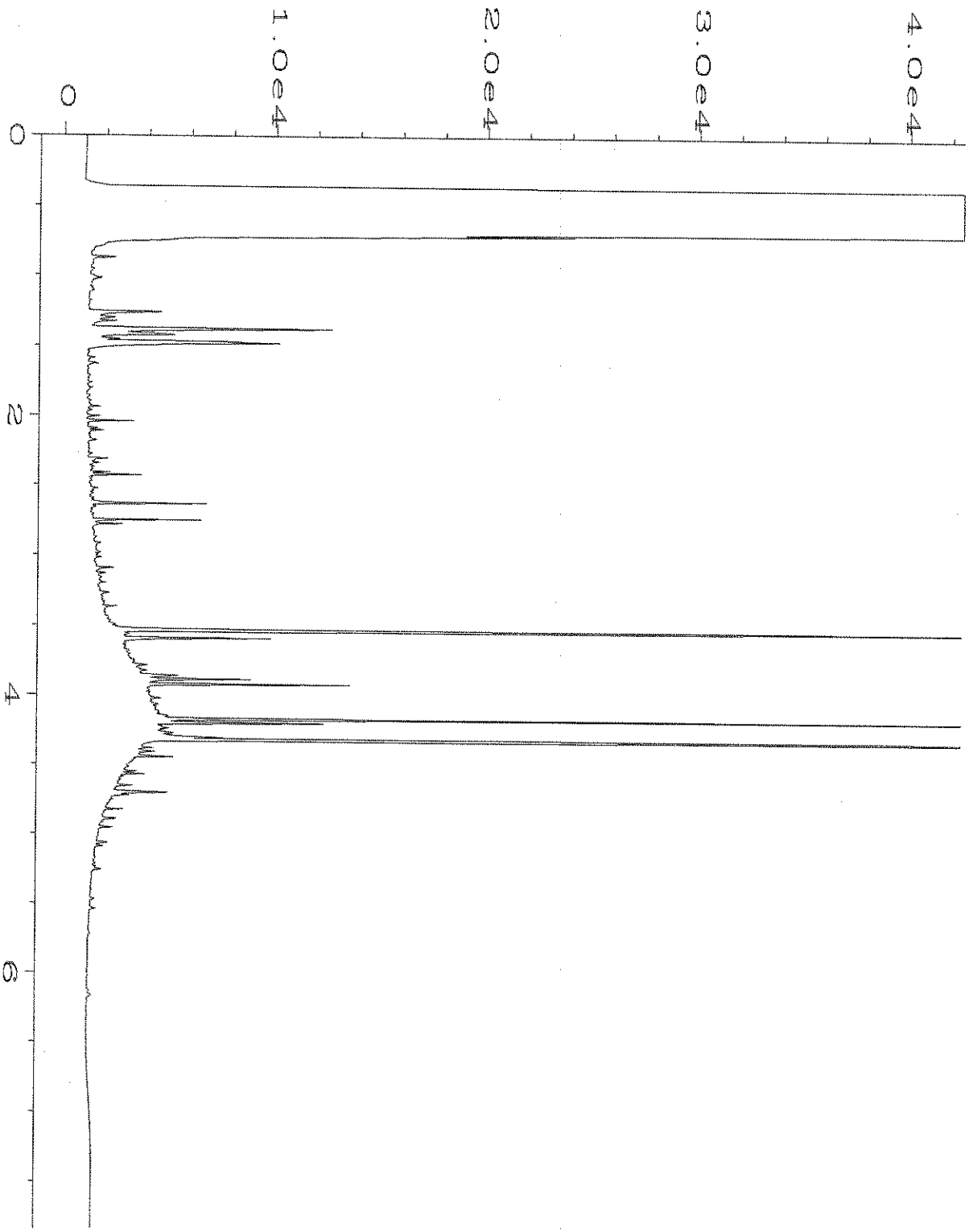


Data File Name : C:\HPCHEM\4\DATA\06-18-19\027F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-04
Run Time Bar Code:
Acquired on : 18 Jun 19 07:09 PM
Report Created on: 19 Jun 19 09:36 AM

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

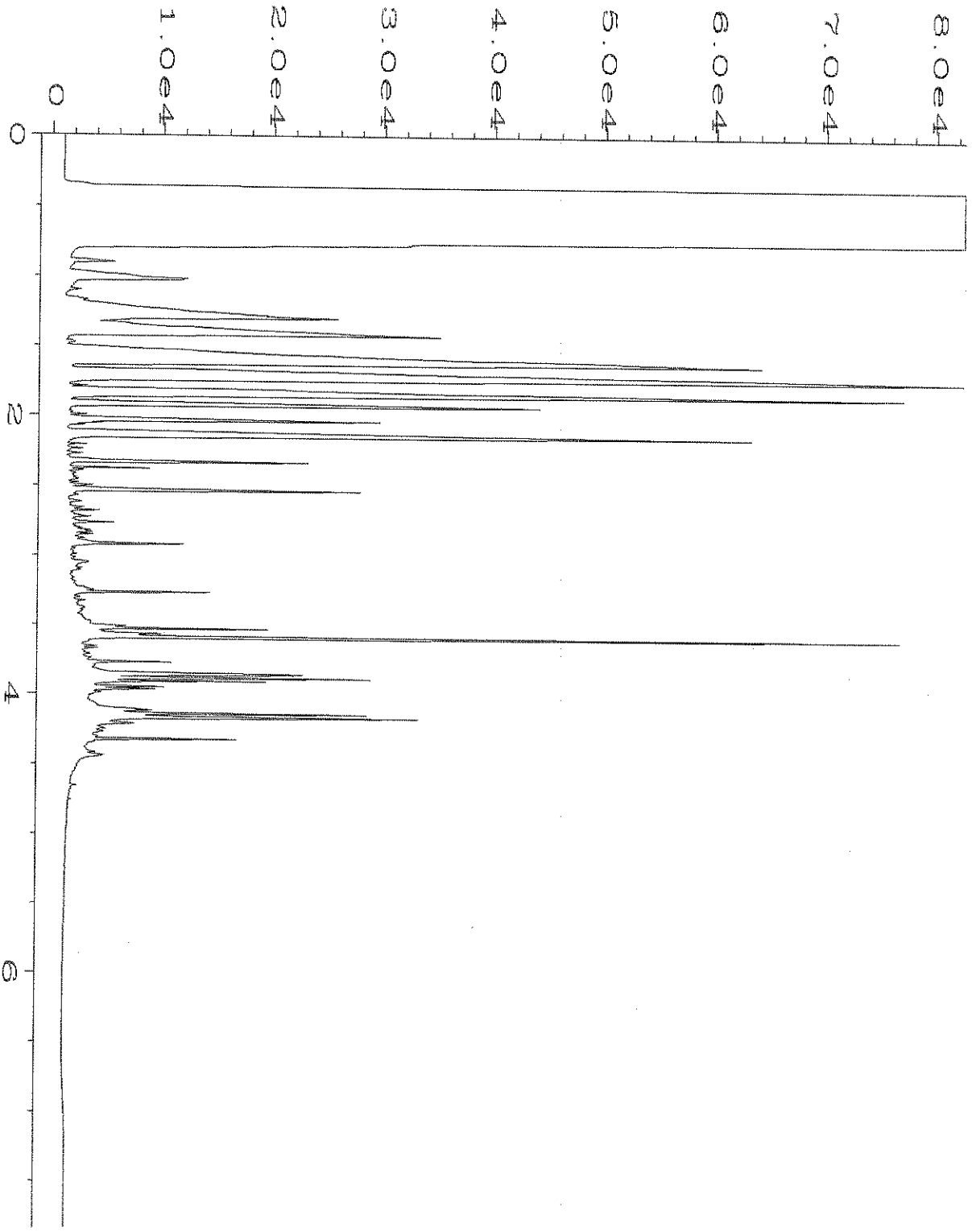


Data File Name	: C:\HPCHEM\4\DATA\06-18-19\028F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 28
Sample Name	: 906323-05 1/10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 18 Jun 19 07:22 PM	Instrument Method	: DX.MTH
Report Created on	: 19 Jun 19 09:36 AM	Analysis Method	: DEFAULT.MTH



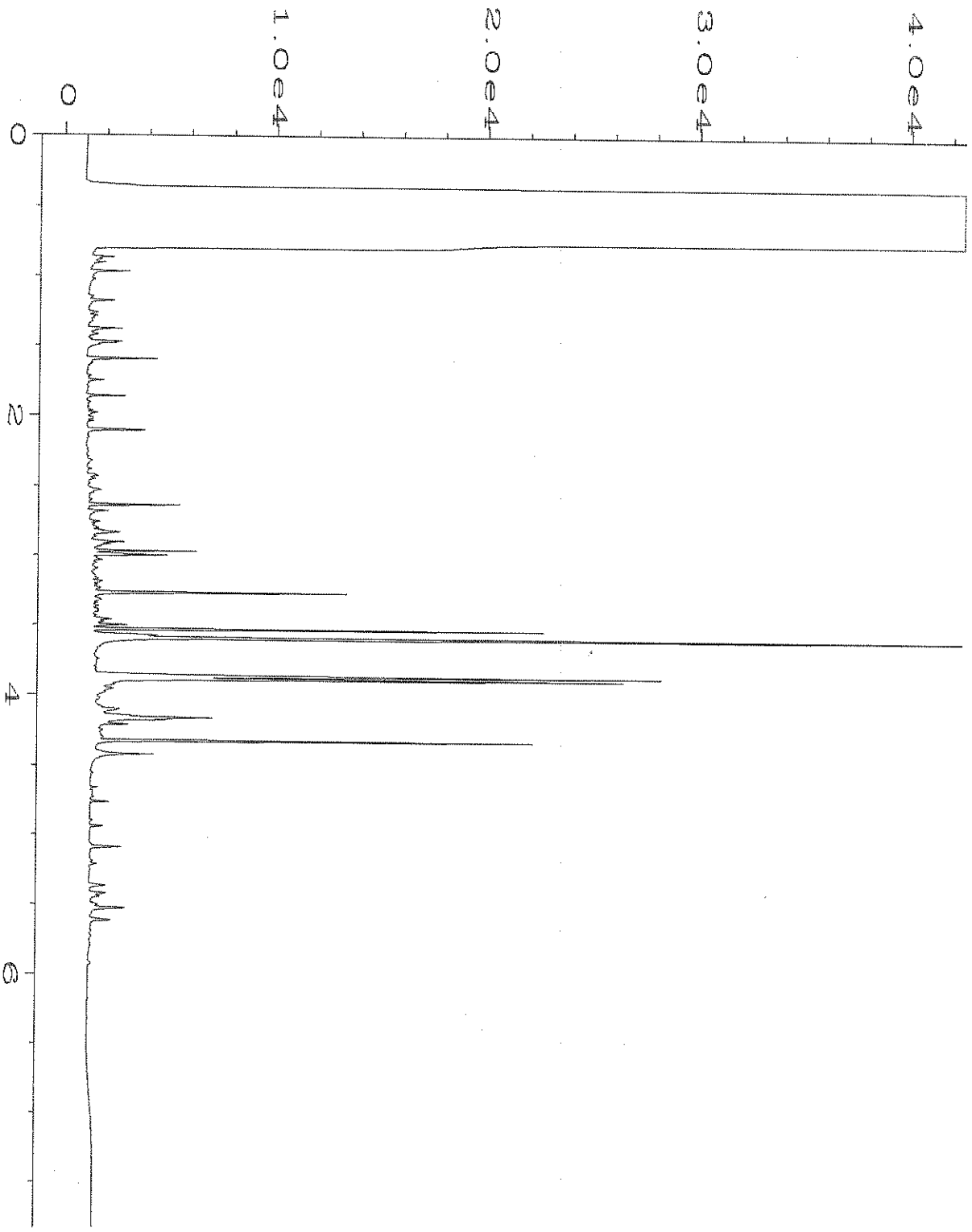
Data File Name : C:\HPCHEM\4\DATA\06-18-19\029F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-06
Run Time Bar Code:
Acquired on : 18 Jun 19 07:34 PM
Report Created on: 19 Jun 19 09:37 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



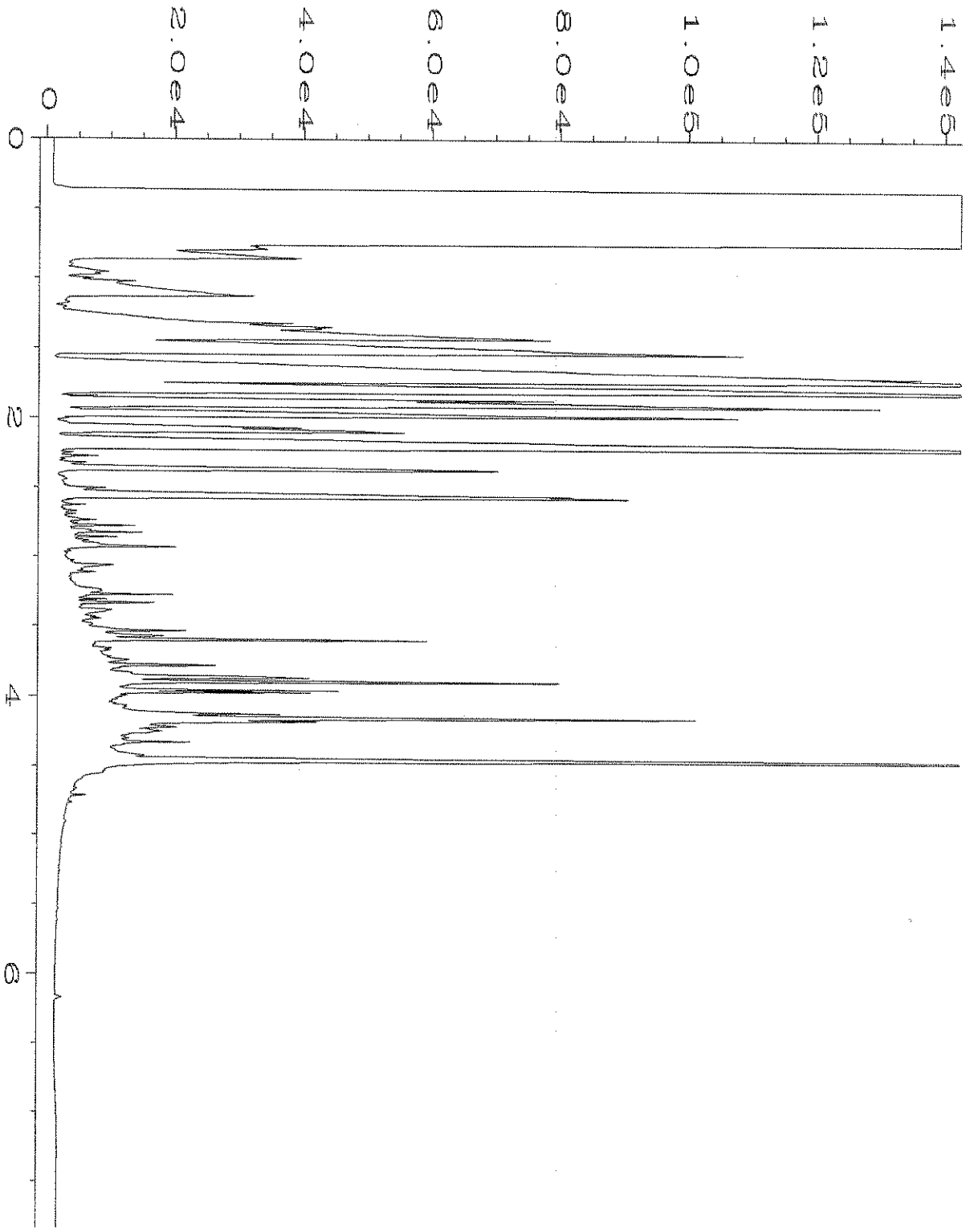
Data File Name : C:\HPCHEM\4\DATA\06-18-19\030F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-07 1/10
Run Time Bar Code:
Acquired on : 18 Jun 19 07:46 PM
Report Created on: 19 Jun 19 09:37 AM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



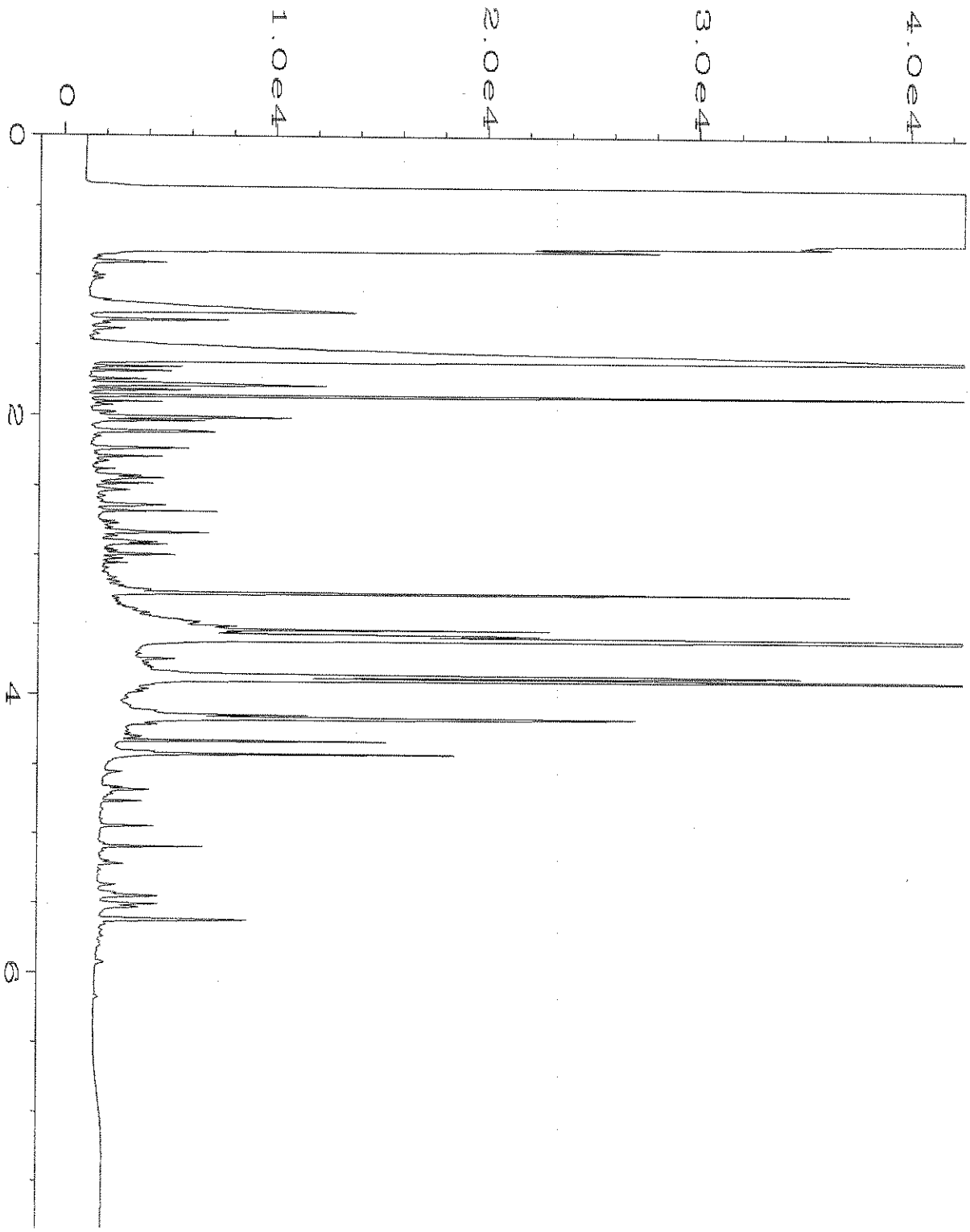
Data File Name : C:\HPCHEM\4\DATA\06-18-19\031F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-08 1/10
Run Time Bar Code:
Acquired on : 18 Jun 19 07:58 PM
Report Created on: 19 Jun 19 09:37 AM

Page Number : 1
Vial Number : 31
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



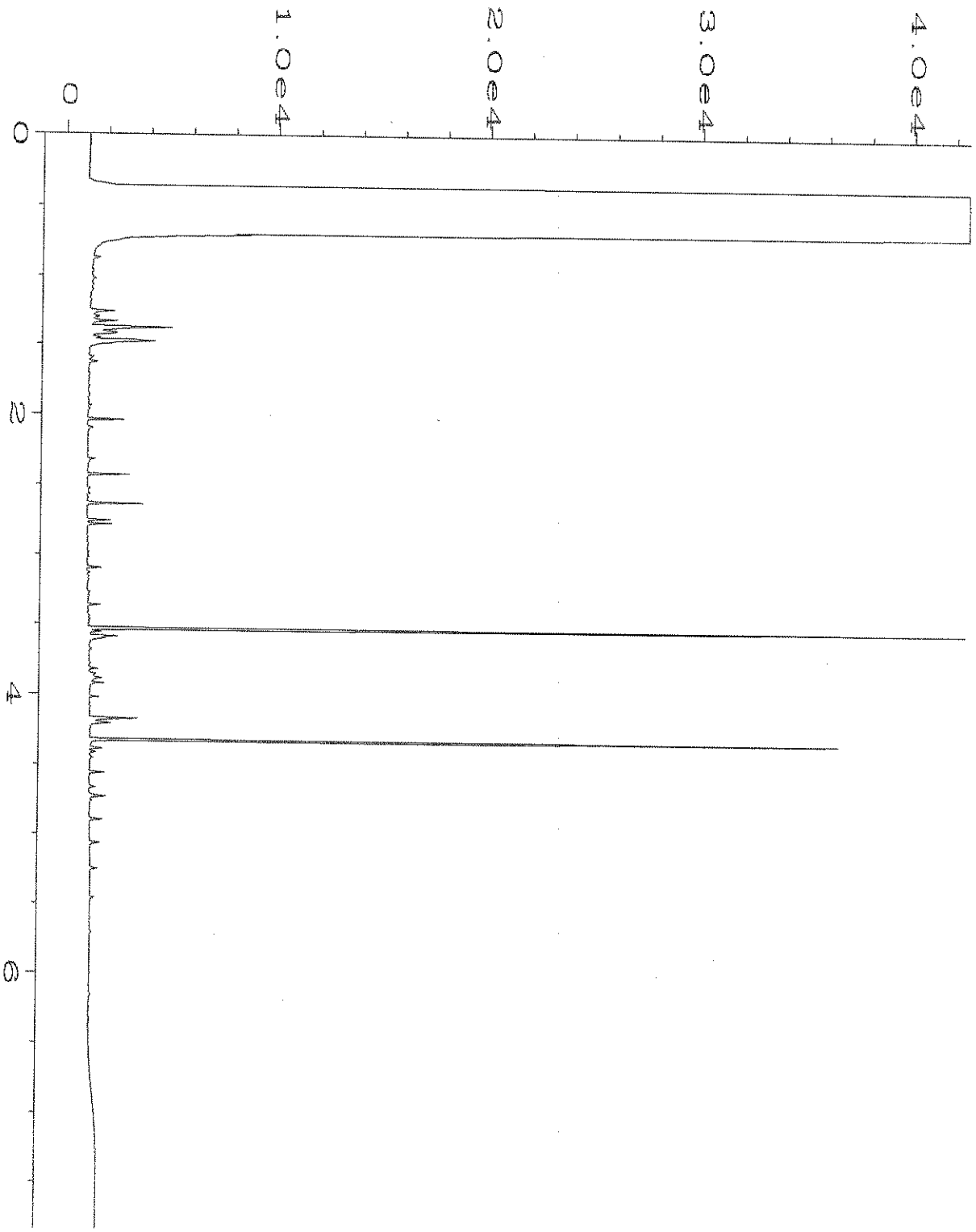
Data File Name : C:\HPCHEM\4\DATA\06-18-19\032F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-09 1/10
Run Time Bar Code:
Acquired on : 18 Jun 19 08:10 PM
Report Created on: 19 Jun 19 09:38 AM

Page Number : 1
Vial Number : 32
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



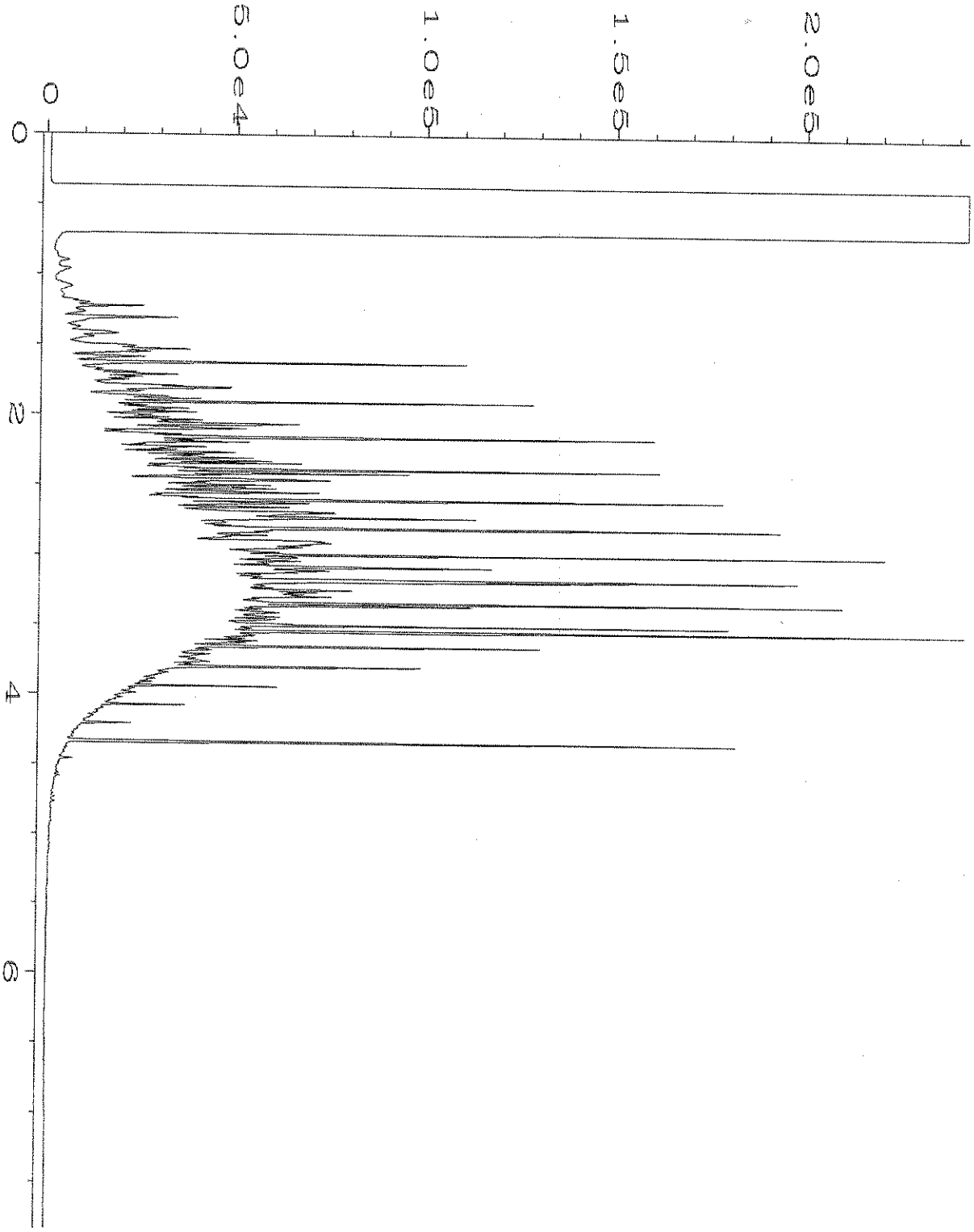
Data File Name : C:\HPCHEM\4\DATA\06-18-19\033F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-10 1/10
Run Time Bar Code:
Acquired on : 18 Jun 19 08:22 PM
Report Created on: 19 Jun 19 09:38 AM

Page Number : 1
Vial Number : 33
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



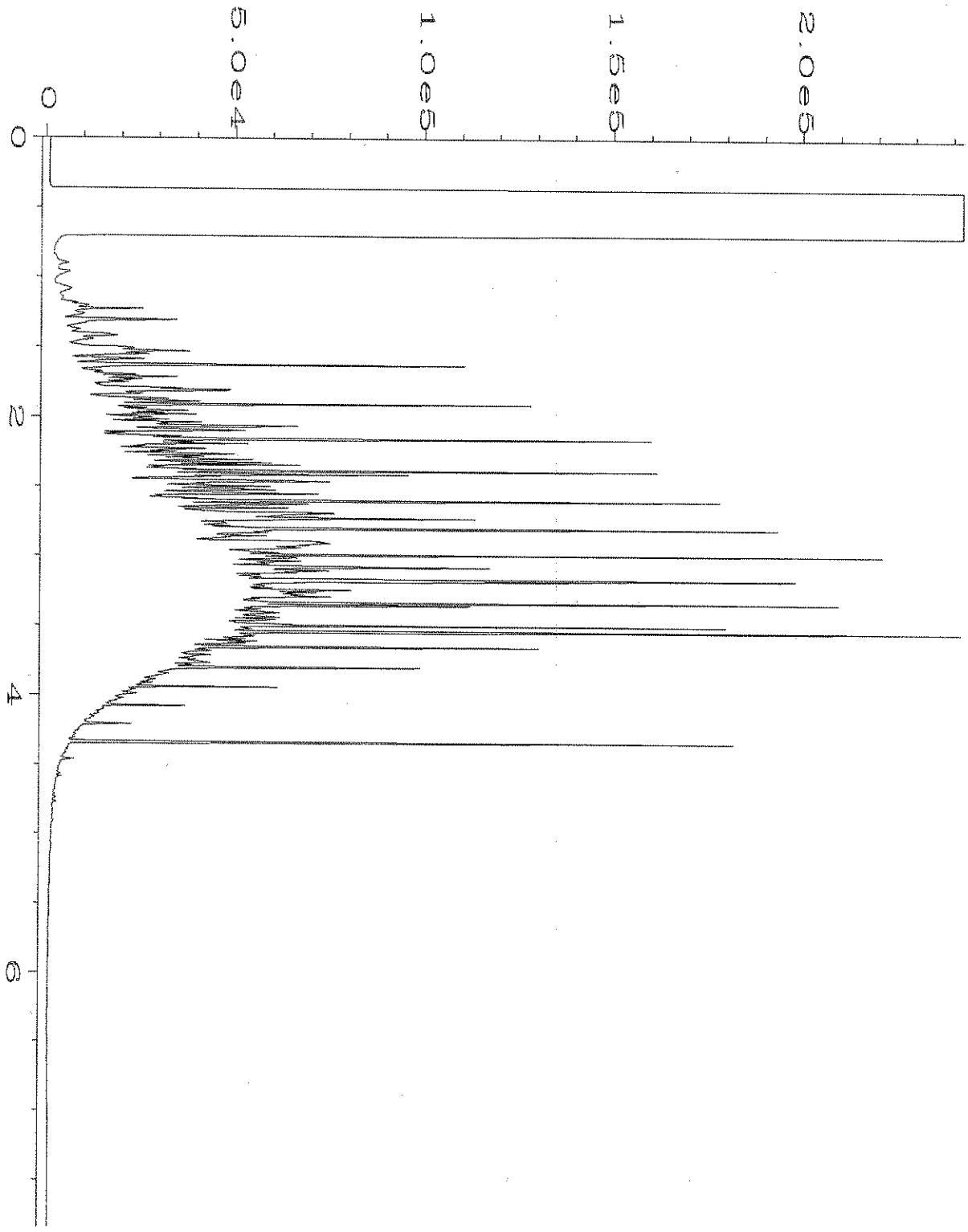
Data File Name : C:\HPCHEM\4\DATA\06-18-19\034F1001.D
Operator : TL
Instrument : GC#4
Sample Name : 906323-11
Run Time Bar Code:
Acquired on : 18 Jun 19 08:34 PM
Report Created on: 19 Jun 19 09:38 AM

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\4\DATA\06-18-19\005F0501.D
Operator : TL
Instrument : GC#4
Sample Name : 1000 Dx 57-78B
Run Time Bar Code:
Acquired on : 18 Jun 19 02:55 PM
Report Created on: 19 Jun 19 09:35 AM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name	: C:\HPCHEM\4\DATA\06-18-19\005F0501.D		
Operator	: TL	Page Number	: 1
Instrument	: GC#4	Vial Number	: 5
Sample Name	: 1000 Dx 57-78B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 18 Jun 19 02:55 PM	Instrument Method	: DX.MTH
Report Created on	: 19 Jun 19 09:35 AM	Analysis Method	: DEFAULT.MTH

906323

SAMPLE CHAIN OF CUSTODY

ME 06/17/19

VW6/B03/A15

Send Report To Tom Cam... cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) Sarah Wells

Page # 1 of 1

PROJECT NAME/NO.	PO #
Troy Laundry Property	0731-004-05
REMARKS	EIM Y

TURNAROUND TIME

Standard (2 Weeks)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW25-20190615	MW25	—	01 AN	6/15/19	0818	W	14	X	X	X	X	X	X	X	X	X	
MW19-20190615	MW19	—	02 AM		0824	W	13	X	X	X	X	X	X	X	X		
MW18-20190615	MW18	—	03 AN		0935	W	14	X	X	X	X	X	X	X	X	X	
MW17-20190615	MW17	—	04 AG		1030	W	7	X	X	X	X						
MW24-20190615	MW24	—	05 AN		1120	W	14	X	X	X	X	X	X	X	X	X	
MW20-20190615	MW20	—	06 AG		1120	W	7	X	X	X	X						
MW21-20190615	MW21	—	07 AK		1232	W	11	X	X	X	X	X				X	
MW99-20190615	MW99	—	08 AG		1200	W	7	X	X	X	X						
MW22-20190615	MW22	—	09 AN		1310	W	14	X	X	X	X	X	X	X	X	X	
MW23-20190615	MW23	—	10 AN		1410	W	14	X	X	X	X	X	X	X	X	X	
IW91-20190615	IW91	—	11 AG		1420	W	7	X	X	X	X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Wells	Sarah Wells	SES	6/17/19	930
Received by:		Wilson Ahlgas	FedEx	6-19-19	930
Relinquished by: Rec!	D. M-B	Liz Webber-Bruya	FB1	6/17/19	1100
Received by:					4

Samples received at 4 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 26, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

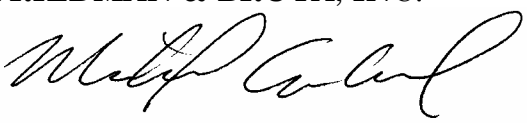
Dear Mr Cammarata:

Included are the results from the testing of material submitted on June 17, 2019 from the SOU_0731-004-05_ 20190617, F&BI 906324 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU0626R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 17, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-05_ 20190617, F&BI 906324 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
906324 -01	IW06-20190615
906324 -02	IW04-20190615
906324 -03	IW50-20190615
906324 -04	IW61-20190615

Samples IW04-20190615, IW50-20190615, and IW61-20190615 were sent to Fremont Analytical for nitrate, sulfate, alkalinity, TOC, and ferrous iron analysis. In addition, samples IW50-20190615 and IW61-20190615 were sent to Fremont for dissolved gasses analysis. The report is enclosed.

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW04-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906324-02 x20
Date Analyzed:	06/19/19	Data File:	906324-02 x20.048
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	17,900
Manganese	12,900

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW50-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906324-03 x10
Date Analyzed:	06/18/19	Data File:	906324-03 x10.128
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	7,550
Manganese	9,670

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW61-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	906324-04 x20
Date Analyzed:	06/19/19	Data File:	906324-04 x20.049
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	25,500
Manganese	11,800

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/18/19	Lab ID:	I9-375 mb
Date Analyzed:	06/18/19	Data File:	I9-375 mb.095
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50
Manganese	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW06-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906324-01
Date Analyzed:	06/19/19	Data File:	061948.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	1.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW04-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906324-02
Date Analyzed:	06/19/19	Data File:	061949.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.7
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW50-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906324-03
Date Analyzed:	06/19/19	Data File:	061950.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	54
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	2.0
Tetrachloroethene	5.2

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW61-20190615	Client:	SoundEarth Strategies
Date Received:	06/17/19	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	906324-04
Date Analyzed:	06/19/19	Data File:	061951.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	118	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.9
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	71
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	2.4
Tetrachloroethene	13

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20190617
Date Extracted:	06/19/19	Lab ID:	09-1429 mb
Date Analyzed:	06/19/19	Data File:	061911.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS/AEN

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906324

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 906321-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	152	89	85	70-130	5
Manganese	ug/L (ppb)	20	30.6	101	95	70-130	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	99	85-115
Manganese	ug/L (ppb)	20	95	85-115

Date of Report: 06/26/19
Date Received: 06/17/19
Project: SOU_0731-004-05_ 20190617, F&BI 906324

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 906324-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	7.1	116	36-166
Chloroethane	ug/L (ppb)	50	<1	108	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	106	60-136
Methylene chloride	ug/L (ppb)	50	<5	107	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	109	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	105	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	54	108 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	97	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	109	60-146
Trichloroethene	ug/L (ppb)	50	2.0	99	66-135
Tetrachloroethene	ug/L (ppb)	50	5.2	103	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	131	118	50-154	10
Chloroethane	ug/L (ppb)	50	119	107	58-146	11
1,1-Dichloroethene	ug/L (ppb)	50	116	105	67-136	10
Methylene chloride	ug/L (ppb)	50	115	104	39-148	10
trans-1,2-Dichloroethene	ug/L (ppb)	50	118	107	68-128	10
1,1-Dichloroethane	ug/L (ppb)	50	112	104	79-121	7
cis-1,2-Dichloroethene	ug/L (ppb)	50	116	108	80-123	7
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	102	101	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	118	108	81-125	9
Trichloroethene	ug/L (ppb)	50	105	101	79-113	4
Tetrachloroethene	ug/L (ppb)	50	107	102	76-121	5

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

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Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 906324
Work Order Number: 1906195

June 24, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 3 sample(s) on 6/17/2019 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ferrous Iron by SM3500-Fe B
Ion Chromatography by EPA Method 300.0
Total Alkalinity by SM 2320B
Total Organic Carbon by SM 5310C

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

Date: *06/24/2019*

CLIENT: Friedman & Bruya
Project: 906324
Work Order: 1906195

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1906195-001	IW04-20190615	06/15/2019 10:17 AM	06/17/2019 1:45 PM
1906195-002	IW50-20190615	06/15/2019 12:05 PM	06/17/2019 1:45 PM
1906195-003	IW61-20190615	06/15/2019 1:25 PM	06/17/2019 1:45 PM

Case Narrative

WO#: **1906195**
Date: **6/24/2019**

CLIENT: Friedman & Bruya
Project: 906324

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: **1906195**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 10:17:00 AM
Project: 906324
Lab ID: 1906195-001
Matrix: Water
Client Sample ID: **IW04-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 12:38:00 PM
Sulfate	0.759	0.300		mg/L	1	6/18/2019 12:38:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	148	2.50	D	mg/L	5	6/19/2019 11:14:00 AM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	611	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	0.0865	0.0500	H	mg/L	1	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906195**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 12:05:00 PM
Project: 906324
Lab ID: 1906195-002
Matrix: Water
Client Sample ID: **IW50-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	3.11	0.173	D	mg/L	20	6/19/2019 5:00:00 PM
Ethene	ND	0.303	D	mg/L	20	6/19/2019 5:00:00 PM
Ethane	ND	0.324	D	mg/L	20	6/19/2019 5:00:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 2:11:00 PM
Sulfate	11.0	0.300		mg/L	1	6/18/2019 2:11:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	7.56	0.500		mg/L	1	6/18/2019 6:41:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	299	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	7.08	0.500	DH	mg/L	10	6/19/2019 5:00:00 PM

Analytical Report

Work Order: **1906195**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/15/2019 1:25:00 PM
Project: 906324
Lab ID: 1906195-003
Matrix: Water
Client Sample ID: **IW61-20190615**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	2.44	0.173	D	mg/L	20	6/19/2019 5:03:00 PM
Ethene	ND	0.303	D	mg/L	20	6/19/2019 5:03:00 PM
Ethane	ND	0.324	D	mg/L	20	6/19/2019 5:03:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24947		Analyst: SS
Nitrate (as N)	ND	0.100	H	mg/L	1	6/18/2019 2:34:00 PM
Sulfate	0.338	0.300		mg/L	1	6/18/2019 2:34:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	140	2.50	D	mg/L	5	6/18/2019 11:58:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52247		Analyst: WF
Alkalinity, Total (As CaCO3)	429	2.50		mg/L	1	6/21/2019 1:25:44 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52165		Analyst: GM
Ferrous Iron	30.5	2.50	DH	mg/L	50	6/19/2019 5:00:00 PM

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R52247**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **6/21/2019**			RunNo: **52247**	
Client ID: **MBLKW**	Batch ID: **R52247**					Analysis Date: **6/21/2019**			SeqNo: **1031932**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R52247**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/21/2019**			RunNo: **52247**	
Client ID: **LCSW**	Batch ID: **R52247**					Analysis Date: **6/21/2019**			SeqNo: **1031933**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	104	2.50	100.0	0	104	80	120				

Sample ID: **1906195-001BDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/21/2019**			RunNo: **52247**	
Client ID: **IW04-20190615**	Batch ID: **R52247**					Analysis Date: **6/21/2019**			SeqNo: **1031935**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	618	2.50						611.0	1.06	20	

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Ferrous Iron by SM3500-Fe B

Sample ID: **MB-R52165** SampType: **MBLK** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **MBLKW** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1029999**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.0500									

Sample ID: **LCS-R52165** SampType: **LCS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **LCSW** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030000**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.406	0.0500	0.4000	0	101	80	120				

Sample ID: **1906196-001ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030007**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.922	0.0500						1.023	10.4	20	H

Sample ID: **1906196-001AMS** SampType: **MS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030008**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	66.9	80	120				SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **1906196-001AMSD** SampType: **MSD** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52165**
Client ID: **BATCH** Batch ID: **R52165** Analysis Date: **6/19/2019** SeqNo: **1030009**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.29	0.0500	0.4000	1.023	67.5	80	120	1.291	0.182	20	SH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **MB-24947**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **6/17/2019**		RunNo: **52162**	
Client ID: **MBLKW**	Batch ID: **24947**					Analysis Date: **6/17/2019**		SeqNo: **1029908**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100									
Sulfate	ND	0.300									

Sample ID: **LCS1-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**		RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/17/2019**		SeqNo: **1029909**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.739	0.100	0.7500	0	98.5	90	110				
Sulfate	3.65	0.300	3.750	0	97.4	90	110				

Sample ID: **LCS2-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**		RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**		SeqNo: **1029925**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.57	0.300	3.750	0	95.2	90	110				

Sample ID: **LCS3-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**		RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**		SeqNo: **1029926**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.725	0.100	0.7500	0	96.7	90	110				
Sulfate	3.55	0.300	3.750	0	94.6	90	110				

Sample ID: **LCS4-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**		RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**		SeqNo: **1029927**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.732	0.100	0.7500	0	97.6	90	110				

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **LCS4-24947**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **LCSW**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029927**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.73	0.300	3.750	0	99.4	90	110				

Sample ID: **1906195-001BDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **IW04-20190615**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029933**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100						0		20	H
Sulfate	0.749	0.300						0.7590	1.33	20	

Sample ID: **1906195-001BMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **IW04-20190615**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029934**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.787	0.100	0.7500	0.09000	92.9	80	120				H
Sulfate	4.20	0.300	3.750	0.7590	91.8	80	120				

Sample ID: **1906195-001BMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **6/17/2019**			RunNo: **52162**	
Client ID: **IW04-20190615**	Batch ID: **24947**					Analysis Date: **6/18/2019**			SeqNo: **1029935**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.784	0.100	0.7500	0.09000	92.5	80	120	0.7870	0.382	20	H
Sulfate	4.18	0.300	3.750	0.7590	91.3	80	120	4.203	0.525	20	

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MBLK-52199**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **MBLKW**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030537**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.500									

Sample ID: **LCS-52199**	SampType: **LCS**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **LCSW**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030538**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.14	0.500	5.000	0	103	80	120				

Sample ID: **1906179-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030540**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.14	0.500						1.129	0.618	20	

Sample ID: **1906179-001DMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030541**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.48	0.500	5.000	1.129	107	70	130				

Sample ID: **1906179-001DMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **6/18/2019**			RunNo: **52199**	
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**			SeqNo: **1030542**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	6.28	0.500	5.000	1.129	103	70	130	6.478	3.02	30	

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **1906197-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/18/2019**		RunNo: **52199**			
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**		SeqNo: **1030549**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	26.0	0.500						25.77	0.927	20	

Sample ID: **1906197-001DMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/18/2019**		RunNo: **52199**			
Client ID: **BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**		SeqNo: **1030550**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	31.0	0.500	5.000	25.77	104	70	130				

Work Order: 1906195
CLIENT: Friedman & Bruya
Project: 906324

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **LCS-R52203** SampType: **LCS** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **LCSW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030678**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,020	0.00863	1,000	0	102	70	130				
Ethene	976	0.0151	1,000	0	97.6	70	130				
Ethane	973	0.0162	1,000	0	97.3	70	130				

Sample ID: **MB-R52203** SampType: **MBLK** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **MBLKW** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030679**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: **1906152-001AREP** SampType: **REP** Units: **mg/L** Prep Date: **6/19/2019** RunNo: **52203**
Client ID: **BATCH** Batch ID: **R52203** Analysis Date: **6/19/2019** SeqNo: **1030653**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	4.81	0.173						4.601	4.43	30	DE
Ethene	ND	0.303						0		30	D
Ethane	ND	0.324						0		30	D

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1906195**
Logged by:	**Clare Griggs**	Date Received:	**6/17/2019 1:45:00 PM**

Chain of Custody

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

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 >0°C to 10.0°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 ºC
Cooler	9.6
Sample	8.7

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1906195

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont

PROJECT NAME/NO.	PO #
906324	B-297

REMARKS

Please Email Results

TURNAROUND TIME

☒ Standard (2 Weeks)

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dioxins/Furans	EPH	VPH	RSK 175 Ethene/Methane/Ethane	Sulfate	Alkalinity	Nitrate	Ferrous Iron	TOC		Notes
IW04-20190615		6/15/19	1017	H_2O						X	X	X	X	X		
IW50-20190615		↓	1205	↓					X	X	X	X	X	X		
IW61-20190615		↓	1325	↓					X	X	X	X	X	X		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	6/17/19	12:06
Received by:			FBI	6/17/19	1345
Relinquished by:					
Received by:					

SAMPLE CHAIN OF CUSTODY

906324

ME 06-17-19 | VW3

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) Sarah Welte

Page # 1 of 1

PROJECT NAME/NO.	PO #
Troy Laundry Property	0731-004-05
REMARKS	EIM Y

TURNAROUND TIME AI 3

(Standard (2 Weeks)) [circled]

RUSH___

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
IW06-20190615	IW06	–	01 A-C	6/15/19	0942	W	3				X						
IW04-20190615	IW04	–	02 A-G		1017	W	7				X		X	X	X	X	
IW50-20190615	IW50	–	03 A-J		1205	W	10				X	X	X	X	X	X	
IW61-20190615	IW61	–	04		1325	W	10				X	X	X	X	X	X	

SHW

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welte	Sarah Welte	SES	6/17/19	930
Received by:		Wilson Vargas	FedEx	6-17-19	930
Relinquished by:	D. M-B	Liz Webber-Bruya	F?BI	6/17/19	1100
Received by:					

Samples received at 4 °C

SiREM
Leading Science · Lasting Solutions

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results

Client: SoundEarth Strategies
Client Project Number: 0731-004
Date Samples Received: June 18, 2019
Date Samples Analyzed: June 25, 2019

SiREM File Reference: S-5382

Client Sample ID	SiREM Reference ID	Client Sample Date	Sample dilution factor	Lactate	Acetate	Propionate	Formate	Butyrate	Pyruvate
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW25-20190615	19-1594	15-Jun-19	50	<0.39	45	1.3	<0.22	1.3	<0.69
MW18-20190615	19-1595	15-Jun-19	50	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69
IW04-20190615	19-1596	15-Jun-19	50	<0.39	31	6.1	<0.22	3.2	0.42
MW24-20190615	19-1597	15-Jun-19	50	<0.39	39	5.6	<0.22	0.46	<0.69
IW50-20190615	19-1598	15-Jun-19	50	<0.39	<0.54	<0.31	<0.22	<0.41	<0.69
MW21-20190615	19-1599	15-Jun-19	50	<0.39	140	66	<0.22	12	4.2
MW22-20190615	19-1600	15-Jun-19	50	<0.39	270	150	<0.22	39	13
IW61-20190615	19-1601	15-Jun-19	50	<0.39	88	72	<0.22	4.4	0.58
MW23-20190615	19-1602	15-Jun-19	50	<0.39	19	86	<0.22	0.42	1.8
		QL	50	0.39	0.54	0.31	0.22	0.41	0.69

Comments:
Method: Ion Chromatography
QL = Quantitation limit
J = associated value is estimated; compound positively detected at concentration below the QL
< = compound analysed for but not detected, associated value is QL. Sample QL is corrected for dilution.

Analyst:

Steven Sande
Laboratory Technician

Results approved:

Michael Healey, B.Sc.
Laboratory Technician

Date: 26-Jun-19

SiREM

Chain-of-Custody Form

siremlab.com

180A Market Place Bl
Knoxville, TN 37
(865) 330-003

Lab # S-5382

Project Name	Troy Laundry
Project #	0731-004
Project Manager	Logan Schumacher
Email	LSCHUMACHER@SOUNDEARTHINC.COM
Company	Sound Earth Strategies
Address	2811 Fairview Ave E Suite 2000
	Seattle, WA 98102
Phone #	206-306-1900
Sampler's Signature	Sarah Welter
Sampler's Printed Name	Sarah Welter

Analysis

Preservative: 0

Volatile Fatty Acids

VOA centrifuge vial #

Preservative Key
0. None
1. HCL
2. Other
3. Other
4. Other
5. Other
6. Other

Client Sample ID	Lab ID	Sampling Date	Sampling Time	Matrix	# of Containers	Preservative	VOA centrifuge vial #	Other Information
MW25-20190615		6/15/19	0818	W	2	X	1	
MW18-20190615			0935	W	2	X	2	
IW04-20190615			1017	W	2	X	3	
MW24-20190615			1120	W	2	X	4	
IW50-20190615			1205	W	2	X	5	1x Bubble
MW21-20190615			1232	W	2	X	6	
MW22-20190615			1310	W	2	X	7	1x Bubble
IW01-20190615			1325	W	2	X	8	
MW23-20190615			1410	W	2	X	9	
							-5	

Sample Receipt

Cooler Condition: Good

Cooler Temperature: 9.0°C

Custody Seals: Yes ☐ No ☒

Invoice Information

P.O. # 0731-004-05

Bill To: AP@SOUNDEARTHINC.COM

LSCHUMACHER@SOUNDEARTHINC.COM

For Lab Use Only

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: Sarah Welter	Signature: J. Smith	Signature: Susan Thomas	Signature: Rachel Hallman	Signature:	Signature:
Printed Name: Sarah Welter	Printed Name: J. Smith	Printed Name: Susan Thomas	Printed Name: Rachel Hallman	Printed Name:	Printed Name:
Firm: Sound Earth	Firm: SiREM	Firm: SiREM	Firm: S.REM	Firm:	Firm:
Date/Time: 6/17/19 0935	Date/Time: 6-18-19 0915	Date/Time: 6-19-19 1500	Date/Time: 21 June 19 12:10	Date/Time:	Date/Time:

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

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

Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 906291
Work Order Number: 1906179

June 24, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 3 sample(s) on 6/14/2019 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ferrous Iron by SM3500-Fe B
Ion Chromatography by EPA Method 300.0
Total Alkalinity by SM 2320B
Total Organic Carbon by SM 5310C

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

Date: *06/24/2019*

CLIENT: Friedman & Bruya
Project: 906291
Work Order: 1906179

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1906179-001	MW26-20190614	06/14/2019 9:50 AM	06/14/2019 4:41 PM
1906179-002	MW07-20190614	06/14/2019 10:50 AM	06/14/2019 4:41 PM
1906179-003	MW04-20190614	06/14/2019 11:05 AM	06/14/2019 4:41 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1906179**
Date: **6/24/2019**

CLIENT: Friedman & Bruya
Project: 906291

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: **1906179**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/14/2019 9:50:00 AM
Project: 906291
Lab ID: 1906179-001
Matrix: Water
Client Sample ID: **MW26-20190614**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	4.12	0.173	D	mg/L	20	6/19/2019 4:48:00 PM
Ethene	ND	0.303	D	mg/L	20	6/19/2019 4:48:00 PM
Ethane	ND	0.324	D	mg/L	20	6/19/2019 4:48:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24928		Analyst: SS
Nitrate (as N)	7.10	0.500	DH	mg/L	5	6/17/2019 1:42:00 PM
Nitrate (as N)	7.86	0.100	E	mg/L	1	6/14/2019 6:37:00 PM
Sulfate	45.0	1.50	D	mg/L	5	6/17/2019 1:42:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	1.13	0.500		mg/L	1	6/18/2019 4:27:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52246		Analyst: WF
Alkalinity, Total (As CaCO3)	78.0	2.50		mg/L	1	6/24/2019 1:25:36 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52152		Analyst: GM
Ferrous Iron	0.136	0.0500		mg/L	1	6/14/2019 4:30:00 PM

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Analytical Report

Work Order: **1906179**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/14/2019 10:50:00 AM
Project: 906291
Lab ID: 1906179-002
Matrix: Water
Client Sample ID: **MW07-20190614**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	ND	0.00863		mg/L	1	6/19/2019 4:51:00 PM
Ethene	ND	0.0151		mg/L	1	6/19/2019 4:51:00 PM
Ethane	ND	0.0162		mg/L	1	6/19/2019 4:51:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24928		Analyst: SS
Nitrate (as N)	29.1	2.00	DH	mg/L	20	6/17/2019 2:05:00 PM
Nitrate (as N)	32.5	0.100	E	mg/L	1	6/14/2019 8:09:00 PM
Sulfate	51.0	3.00	D	mg/L	10	6/17/2019 2:28:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R52199		Analyst: GM
Total Organic Carbon	0.869	0.500		mg/L	1	6/18/2019 5:47:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52246		Analyst: WF
Alkalinity, Total (As CaCO3)	23.4	2.50		mg/L	1	6/24/2019 1:25:36 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52152		Analyst: GM
Ferrous Iron	0.0818	0.0500		mg/L	1	6/14/2019 4:30:00 PM

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Analytical Report

Work Order: **1906179**
Date Reported: **6/24/2019**

Client: Friedman & Bruya
Collection Date: 6/14/2019 11:05:00 AM
Project: 906291
Lab ID: 1906179-003
Matrix: Water
Client Sample ID: **MW04-20190614**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R52203		Analyst: SG
Methane	ND	0.00863		mg/L	1	6/19/2019 4:54:00 PM
Ethene	ND	0.0151		mg/L	1	6/19/2019 4:54:00 PM
Ethane	ND	0.0162		mg/L	1	6/19/2019 4:54:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 24928		Analyst: SS
Nitrate (as N)	14.8	1.00	DH	mg/L	10	6/17/2019 2:51:00 PM
Nitrate (as N)	16.4	0.100	E	mg/L	1	6/14/2019 8:32:00 PM
Sulfate	46.7	3.00	D	mg/L	10	6/17/2019 2:51:00 PM
Total Alkalinity by SM 2320B				Batch ID: R52246		Analyst: WF
Alkalinity, Total (As CaCO3)	66.3	2.50		mg/L	1	6/24/2019 1:25:36 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R52152		Analyst: GM
Ferrous Iron	0.129	0.0500		mg/L	1	6/14/2019 4:30:00 PM

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID	**MB-R52246**	SampType:	**MBLK**		Units:	**mg/L**	Prep Date:	**6/24/2019**	RunNo:	**52246**
Client ID:	**MBLKW**	Batch ID:	**R52246**				Analysis Date:	**6/24/2019**	SeqNo:	**1031682**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID	**LCS-R52246**	SampType:	**LCS**		Units:	**mg/L**	Prep Date:	**6/24/2019**	RunNo:	**52246**
Client ID:	**LCSW**	Batch ID:	**R52246**				Analysis Date:	**6/24/2019**	SeqNo:	**1031683**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	103	2.50	100.0	0	103	80	120				

Sample ID	**1906179-001BDUP**	SampType:	**DUP**		Units:	**mg/L**	Prep Date:	**6/24/2019**	RunNo:	**52246**
Client ID:	**MW26-20190614**	Batch ID:	**R52246**				Analysis Date:	**6/24/2019**	SeqNo:	**1031685**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	84.5	2.50						78.00	8.00	20	

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ferrous Iron by SM3500-Fe B

Sample ID	**MB-R52152**	SampType:	**MBLK**	Units:	**mg/L**	Prep Date:	**6/14/2019**	RunNo:	**52152**
Client ID:	**MBLKW**	Batch ID:	**R52152**			Analysis Date:	**6/14/2019**	SeqNo:	**1029748**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.0500									

Sample ID	**LCS-R52152**	SampType:	**LCS**	Units:	**mg/L**	Prep Date:	**6/14/2019**	RunNo:	**52152**
Client ID:	**LCSW**	Batch ID:	**R52152**			Analysis Date:	**6/14/2019**	SeqNo:	**1029749**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.371	0.0500	0.4000	0	92.6	80	120				

Sample ID	**1906179-001ADUP**	SampType:	**DUP**	Units:	**mg/L**	Prep Date:	**6/14/2019**	RunNo:	**52152**
Client ID:	**MW26-20190614**	Batch ID:	**R52152**			Analysis Date:	**6/14/2019**	SeqNo:	**1029751**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.115	0.0500						0.1358	16.9	20	

Sample ID	**1906179-001AMS**	SampType:	**MS**	Units:	**mg/L**	Prep Date:	**6/14/2019**	RunNo:	**52152**
Client ID:	**MW26-20190614**	Batch ID:	**R52152**			Analysis Date:	**6/14/2019**	SeqNo:	**1029752**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.518	0.0500	0.4000	0.1358	95.6	80	120				

Sample ID	**1906179-001AMSD**	SampType:	**MSD**	Units:	**mg/L**	Prep Date:	**6/14/2019**	RunNo:	**52152**
Client ID:	**MW26-20190614**	Batch ID:	**R52152**			Analysis Date:	**6/14/2019**	SeqNo:	**1029753**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.568	0.0500	0.4000	0.1358	108	80	120	0.5184	9.08	20	

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID **MB-24928** SampType: **MBLK** Units: **mg/L** Prep Date: **6/14/2019** RunNo: **52127**
Client ID: **MBLKW** Batch ID: **24928** Analysis Date: **6/14/2019** SeqNo: **1029284**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100									
Sulfate	ND	0.300									

Sample ID **LCS-24928** SampType: **LCS** Units: **mg/L** Prep Date: **6/14/2019** RunNo: **52127**
Client ID: **LCSW** Batch ID: **24928** Analysis Date: **6/14/2019** SeqNo: **1029285**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.717	0.100	0.7500	0	95.6	90	110				
Sulfate	3.54	0.300	3.750	0	94.5	90	110				

Sample ID **1906179-001BDUP** SampType: **DUP** Units: **mg/L** Prep Date: **6/14/2019** RunNo: **52127**
Client ID: **MW26-20190614** Batch ID: **24928** Analysis Date: **6/14/2019** SeqNo: **1029287**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	7.85	0.100						7.855	0.0637	20	E
Sulfate	48.1	0.300						48.12	0.0395	20	E

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID **1906179-001BMS** SampType: **MS** Units: **mg/L** Prep Date: **6/14/2019** RunNo: **52127**
Client ID: **MW26-20190614** Batch ID: **24928** Analysis Date: **6/14/2019** SeqNo: **1029288**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	8.69	0.100	0.7500	7.855	112	80	120				E
Sulfate	52.2	0.300	3.750	48.12	108	80	120				E

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID **1906179-001BMSD** SampType: **MSD** Units: **mg/L** Prep Date: **6/14/2019** RunNo: **52127**
Client ID: **MW26-20190614** Batch ID: **24928** Analysis Date: **6/14/2019** SeqNo: **1029289**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	8.70	0.100	0.7500	7.855	112	80	120	8.693	0.0575	20	E
Sulfate	52.3	0.300	3.750	48.12	111	80	120	52.18	0.159	20	E

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID	MBLK-52199	SampType:	MBLK			Units:	mg/L	Prep Date:	6/18/2019		RunNo:	52199	
Client ID:	MBLKW	Batch ID:	R52199					Analysis Date:	6/18/2019		SeqNo:	1030537	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon		ND	0.500										

Sample ID	LCS-52199	SampType:	LCS			Units:	mg/L	Prep Date:	6/18/2019		RunNo:	52199	
Client ID:	LCSW	Batch ID:	R52199					Analysis Date:	6/18/2019		SeqNo:	1030538	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon		5.14	0.500	5.000	0	103	80	120					

Sample ID	1906179-001DDUP	SampType:	DUP			Units:	mg/L	Prep Date:	6/18/2019		RunNo:	52199	
Client ID:	MW26-20190614	Batch ID:	R52199					Analysis Date:	6/18/2019		SeqNo:	1030540	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon		1.14	0.500						1.129	0.618	20		

Sample ID	1906179-001DMS	SampType:	MS			Units:	mg/L	Prep Date:	6/18/2019		RunNo:	52199	
Client ID:	MW26-20190614	Batch ID:	R52199					Analysis Date:	6/18/2019		SeqNo:	1030541	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon		6.48	0.500	5.000	1.129	107	70	130					

Sample ID	1906179-001DMSD	SampType:	MSD			Units:	mg/L	Prep Date:	6/18/2019		RunNo:	52199	
Client ID:	MW26-20190614	Batch ID:	R52199					Analysis Date:	6/18/2019		SeqNo:	1030542	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Total Organic Carbon		6.28	0.500	5.000	1.129	103	70	130	6.478	3.02	30		

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID	**1906197-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **6/18/2019**		RunNo: **52199**		
Client ID:	**BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**		SeqNo: **1030549**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	26.0	0.500						25.77	0.927	20	

Sample ID	**1906197-001DMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **6/18/2019**		RunNo: **52199**		
Client ID:	**BATCH**	Batch ID: **R52199**					Analysis Date: **6/18/2019**		SeqNo: **1030550**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	31.0	0.500	5.000	25.77	104	70	130				

Work Order: 1906179
CLIENT: Friedman & Bruya
Project: 906291

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID	LCS-R52203	SampType:	LCS	Units:	mg/L	Prep Date:	6/19/2019	RunNo:	52203
Client ID:	LCSW	Batch ID:	R52203			Analysis Date:	6/19/2019	SeqNo:	1030678

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,020	0.00863	1,000	0	102	70	130				
Ethene	976	0.0151	1,000	0	97.6	70	130				
Ethane	973	0.0162	1,000	0	97.3	70	130				

Sample ID	MB-R52203	SampType:	MBLK	Units:	mg/L	Prep Date:	6/19/2019	RunNo:	52203
Client ID:	MBLKW	Batch ID:	R52203			Analysis Date:	6/19/2019	SeqNo:	1030679

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID	1906152-001AREP	SampType:	REP	Units:	mg/L	Prep Date:	6/19/2019	RunNo:	52203
Client ID:	BATCH	Batch ID:	R52203			Analysis Date:	6/19/2019	SeqNo:	1030653

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	4.81	0.173						4.601	4.43	30	DE
Ethene	ND	0.303						0		30	D
Ethane	ND	0.324						0		30	D

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1906179**
Logged by:	**Clare Griggs**	Date Received:	**6/14/2019 4:41:00 PM**

Chain of Custody

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

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 >0°C to 10.0°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 ºC
Cooler	4.6
Sample	9.0

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 1906179

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 3012 16th Ave W
City, State, ZIP Seattle, WA 98119
Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont

PROJECT NAME/NO.	PO #
906291	B-282

REMARKS

Please Email Results

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dioxins/Furans	EPH	VPH	Ferrous Iron.	Methane, Ethene, Ethane & SIC.	Nitrate, Sulfate, Alkalinity	TOC				Notes
~~MW28-20190613~~		6/13/19	1535	water					x	x	x					Not received MC 6/14
MW26-20190614		6/14/19	0950						x	x	x	x				
MW07-20190614			1050						x	x	x	x				
MW04-20190614			1105						x	x	x					

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282 Fax (206) 283-5044	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	Relinquished by:	Michael Erdahl	Friedman & Bruya	6/14/19	1501
	Received by:	EA Phoebe Autio	FAI	6-14-19	1641
	Relinquished by:				
	Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

October 17, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on October 9, 2019 from the SOU_0731-004-05_ 20191009, F&BI 910180 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1017R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 9, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-05_ 20191009, F&BI 910180 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
910180 -01	MW29-20191008
910180 -02	MW30-20191008
910180 -03	MW32-20191008
910180 -04	MW31-20191009
910180 -05	MW33-20191009
910180 -06	MW28-20191009

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW29-20191008	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-01
Date Analyzed:	10/14/19	Data File:	101448.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	89	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.64
Chloroethane	<1
1,1-Dichloroethene	1.6
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	52
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	9.4
Tetrachloroethene	8.6

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW30-20191008	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-02
Date Analyzed:	10/14/19	Data File:	101449.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	103	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	24
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.6
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW32-20191008	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-03
Date Analyzed:	10/14/19	Data File:	101450.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW31-20191009	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-04
Date Analyzed:	10/14/19	Data File:	101451.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	104	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.8
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW33-20191009	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-05
Date Analyzed:	10/14/19	Data File:	101452.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	106	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW28-20191009	Client:	SoundEarth Strategies
Date Received:	10/09/19	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	910180-06
Date Analyzed:	10/15/19	Data File:	101453.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	106	63	127
4-Bromofluorobenzene	93	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.31
Chloroethane	<1
1,1-Dichloroethene	1.4
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	72
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	6.1
Tetrachloroethene	8.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-05_ 20191009
Date Extracted:	10/14/19	Lab ID:	09-2463 mb
Date Analyzed:	10/14/19	Data File:	101409.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	92	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 10/17/19
Date Received: 10/09/19
Project: SOU_0731-004-05_ 20191009, F&BI 910180

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 910227-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	114	36-166
Chloroethane	ug/L (ppb)	50	<1	107	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	114	60-136
Methylene chloride	ug/L (ppb)	50	<5	110	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	108	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	108	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	107	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	108	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	109	60-146
Trichloroethene	ug/L (ppb)	50	<1	103	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	92	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	108	114	50-154	5
Chloroethane	ug/L (ppb)	50	103	107	58-146	4
1,1-Dichloroethene	ug/L (ppb)	50	107	113	67-136	5
Methylene chloride	ug/L (ppb)	50	104	110	39-148	6
trans-1,2-Dichloroethene	ug/L (ppb)	50	101	107	68-128	6
1,1-Dichloroethane	ug/L (ppb)	50	101	107	79-121	6
cis-1,2-Dichloroethene	ug/L (ppb)	50	101	107	80-123	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	99	101	73-132	2
1,1,1-Trichloroethane	ug/L (ppb)	50	102	109	81-125	7
Trichloroethene	ug/L (ppb)	50	95	98	79-113	3
Tetrachloroethene	ug/L (ppb)	50	98	101	76-121	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

910180

SAMPLE CHAIN OF CUSTODY

ME 10/9/19

Page # 1 of 1 rev2

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) Sarah Welter

PROJECT NAME/NO. Troy Laundry Property

PO # 0731-004-05

REMARKS EIM Y

TURNAROUND TIME
Standard (2 Weeks)
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
⊗ Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW29-20191008	MW29	—	01	10/8/19	1309	W	3				X						
MW30-20191008	MW30	—	02	10/8/19	1455	W	3				X						
MW32-20191008	MW32	—	03	10/8/19	1610	W	3				X						
MW31-20191009	MW31	—	04	10/9/19	0940	W	3				X						
MW33-20191009	MW33	—	05	10/9/19	1045	W	3				X						
MW28-20191009	MW28	—	06	10/9/19	1142	W	3				X						

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	10/9/19	1424
Received by:		Nhan Phan	FEBT	10/9/19	1424
Relinquished by:					
Received by:			Samples received at 5 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 16, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on December 5, 2019 from the SOU_0731-004-08_ 20191205, F&BI 912081 project. There are 25 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1216R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 5, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-08_ 20191205, F&BI 912081 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
912081 -01	MW04-20191205
912081 -02	MW07-20191205
912081 -03	MW13-20191205
912081 -04	MW27-20191205
912081 -05	MW31-20191205
912081 -06	MW15-20191205
912081 -07	MW28-20191204
912081 -08	MW01-20191205
912081 -09	MW26-20191205
912081 -10	MW32-20191205
912081 -11	MW33-20191205

Samples MW04-20191205, MW07-20191205, MW28-20191204, and MW26-20191205 were sent to Fremont Analytical for dissolved gasses, sulfate, nitrate, alkalinity, and ferrous iron analyses. In addition, samples MW07-20191205 and MW26-20191205 were sent to Fremont for TOC analysis. The report will be forwarded to your office upon receipt.

All other quality control requirements were acceptable.

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081
Date Extracted: 12/06/19
Date Analyzed: 12/06/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW04-20191205 912081-01	<1	<1	<1	<3	<100	77
MW07-20191205 912081-02	<1	<1	<1	<3	<100	76
MW13-20191205 912081-03	<1	<1	<1	<3	<100	79
MW27-20191205 912081-04	<1	<1	<1	<3	<100	77
MW15-20191205 912081-06	<1	<1	<1	<3	<100	78
MW28-20191204 912081-07	<1	<1	<1	<3	150	76
MW01-20191205 912081-08	<1	<1	<1	<3	<100	76
MW26-20191205 912081-09	<1	<1	<1	<3	<100	78
Method Blank 09-2912 MB	<1	<1	<1	<3	<100	77

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081
Date Extracted: 12/06/19
Date Analyzed: 12/06/19 and 12/09/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW04-20191205 912081-01	<50	<250	99
MW07-20191205 912081-02	<50	<250	95
MW13-20191205 912081-03	<50	<250	93
MW27-20191205 912081-04	<50	<250	84
MW15-20191205 912081-06	78 x	<250	88
MW28-20191204 912081-07	98 x	<250	88
MW01-20191205 912081-08	<50	<250	88
MW26-20191205 912081-09	680 x	<250	104
Method Blank 09-2981 MB	<50	<250	90

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW04-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/06/19	Lab ID:	912081-01
Date Analyzed:	12/06/19	Data File:	912081-01.111
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	254
Manganese	7.59

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW07-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/06/19	Lab ID:	912081-02
Date Analyzed:	12/06/19	Data File:	912081-02.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	203
Manganese	5.89

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW28-20191204	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/06/19	Lab ID:	912081-07
Date Analyzed:	12/06/19	Data File:	912081-07.134
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	1,550
Manganese	651

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW26-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/06/19	Lab ID:	912081-09
Date Analyzed:	12/06/19	Data File:	912081-09.135
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	4,830
Manganese	906

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/06/19	Lab ID:	I9-771 mb
Date Analyzed:	12/06/19	Data File:	I9-771 mb.105
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50
Manganese	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW04-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/11/19	Lab ID:	912081-01
Date Analyzed:	12/11/19	Data File:	121157.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	104	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	11
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW07-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/11/19	Lab ID:	912081-02
Date Analyzed:	12/11/19	Data File:	121158.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	5.9
Tetrachloroethene	3.3

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW13-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/11/19	Lab ID:	912081-03
Date Analyzed:	12/11/19	Data File:	121159.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.1
Tetrachloroethene	7.7

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW27-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-04
Date Analyzed:	12/11/19	Data File:	121064.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	102	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	15
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW31-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-05
Date Analyzed:	12/11/19	Data File:	121065.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.3
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW15-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-06
Date Analyzed:	12/11/19	Data File:	121066.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.9
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW28-20191204	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-07
Date Analyzed:	12/11/19	Data File:	121067.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.27
Chloroethane	<1
1,1-Dichloroethene	1.1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	52
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	4.9
Tetrachloroethene	8.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW01-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-08
Date Analyzed:	12/11/19	Data File:	121068.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	98	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW26-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-09
Date Analyzed:	12/11/19	Data File:	121069.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	13
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW32-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-10
Date Analyzed:	12/11/19	Data File:	121070.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW33-20191205	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912081-11
Date Analyzed:	12/11/19	Data File:	121071.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	09-2995 mb
Date Analyzed:	12/10/19	Data File:	121010.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	100	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 912081-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	102	65-118
Toluene	ug/L (ppb)	50	98	72-122
Ethylbenzene	ug/L (ppb)	50	102	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	100	69-134

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	92	104	63-142	12

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 912081-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	254	126	112	70-130	12
Manganese	ug/L (ppb)	20	7.59	101	99	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	99	85-115
Manganese	ug/L (ppb)	20	96	85-115

Date of Report: 12/16/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912081

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 912081-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	102	61-139
Chloroethane	ug/L (ppb)	50	<1	100	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	97	71-123
Methylene chloride	ug/L (ppb)	50	7.1	98	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	101	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	105	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	103	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	106	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	102	75-121
Trichloroethene	ug/L (ppb)	50	11	101 b	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	101	40-155

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	101	101	70-128	0
Chloroethane	ug/L (ppb)	50	100	98	66-149	2
1,1-Dichloroethene	ug/L (ppb)	50	97	98	72-121	1
Methylene chloride	ug/L (ppb)	50	112	114	63-132	2
trans-1,2-Dichloroethene	ug/L (ppb)	50	102	102	76-118	0
1,1-Dichloroethane	ug/L (ppb)	50	104	106	77-119	2
cis-1,2-Dichloroethene	ug/L (ppb)	50	101	104	76-119	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	107	105	75-116	2
1,1,1-Trichloroethane	ug/L (ppb)	50	99	102	80-116	3
Trichloroethene	ug/L (ppb)	50	102	98	72-119	4
Tetrachloroethene	ug/L (ppb)	50	101	99	78-109	2

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

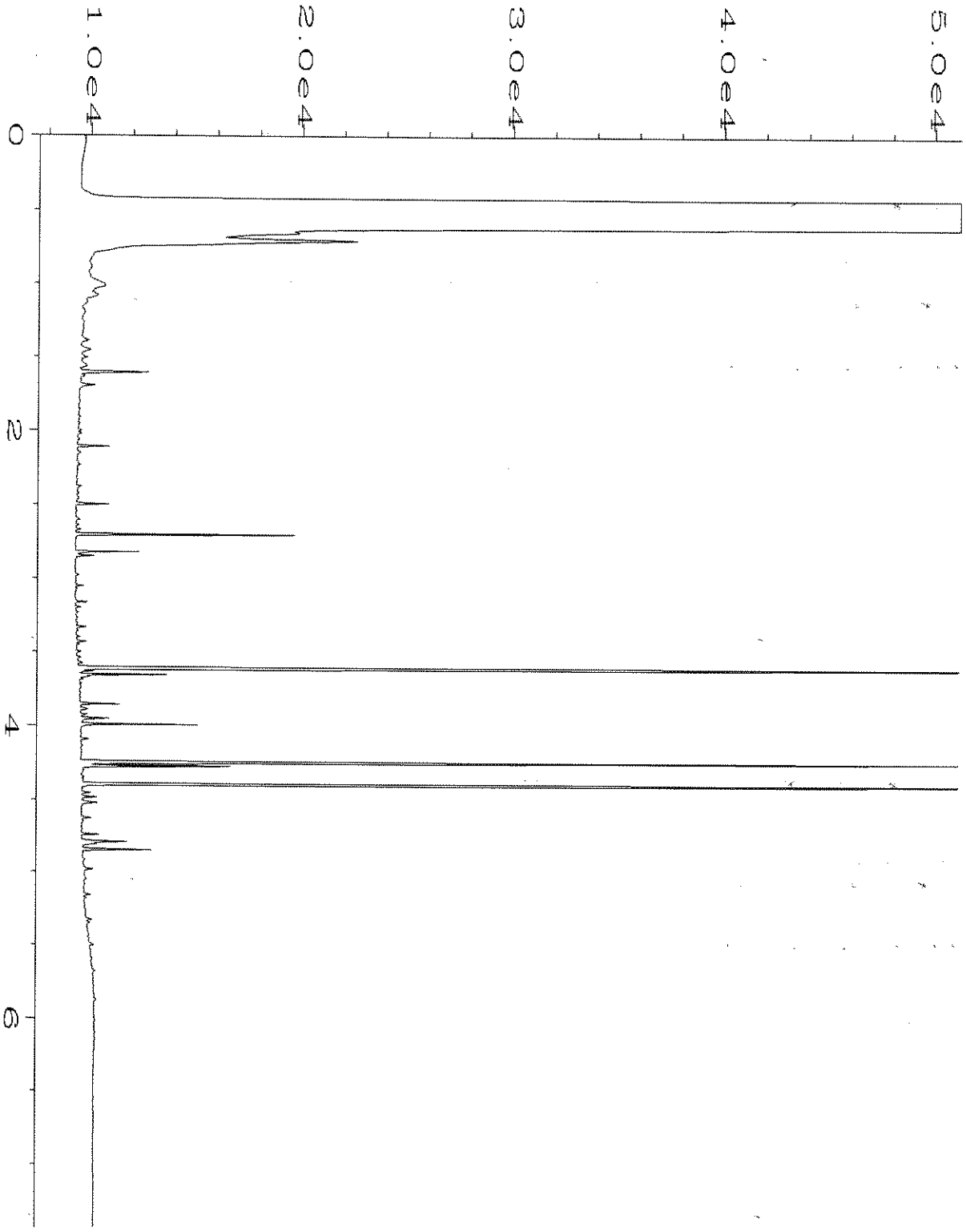
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



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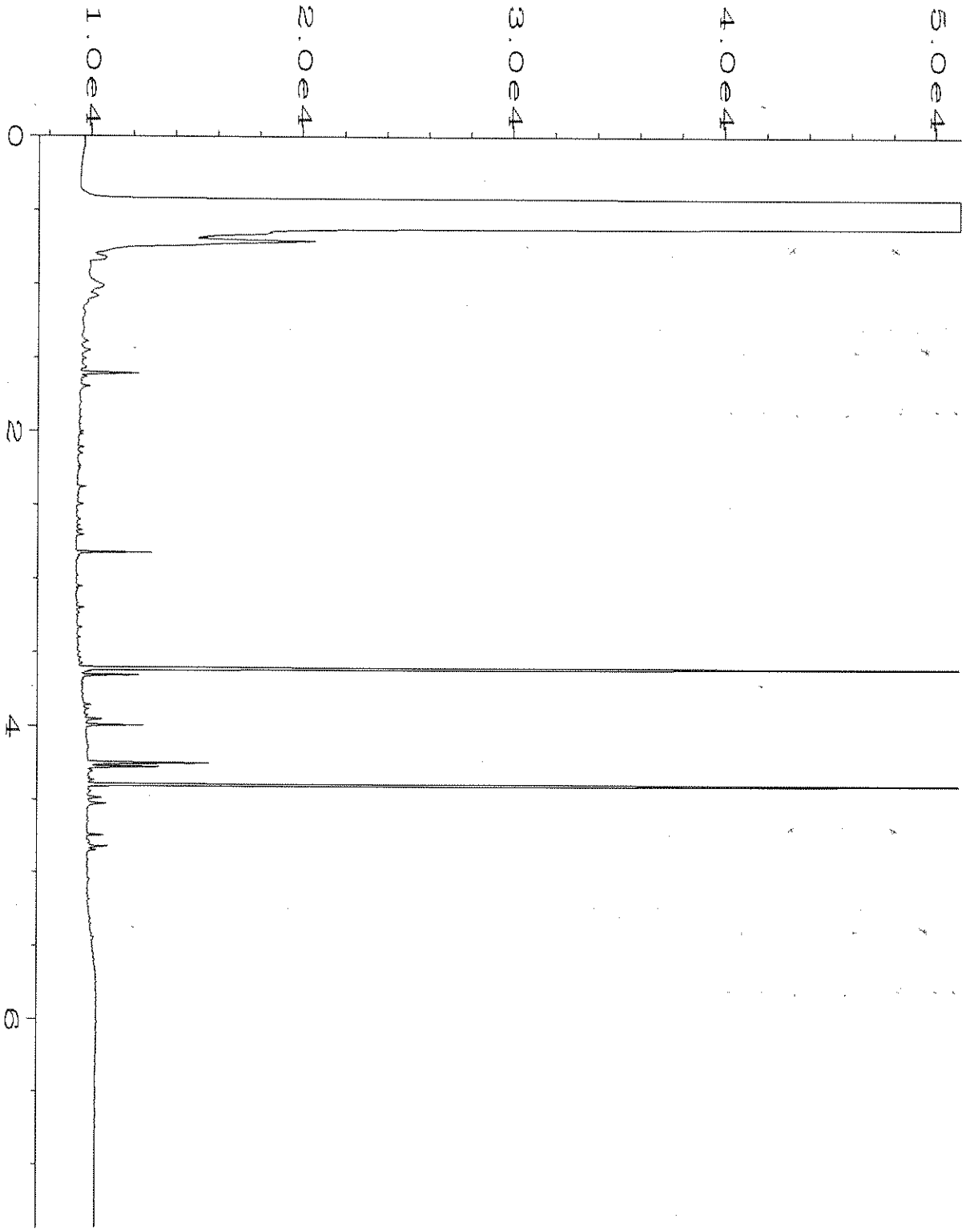
Operator : TL
Instrument : GC1
Sample Name : 912081-01
Run Time Bar Code:
Acquired on : 06 Dec 19 04:56 PM
Report Created on: 09 Dec 19 09:21 AM

Page Number : 1
Vial Number : 35
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



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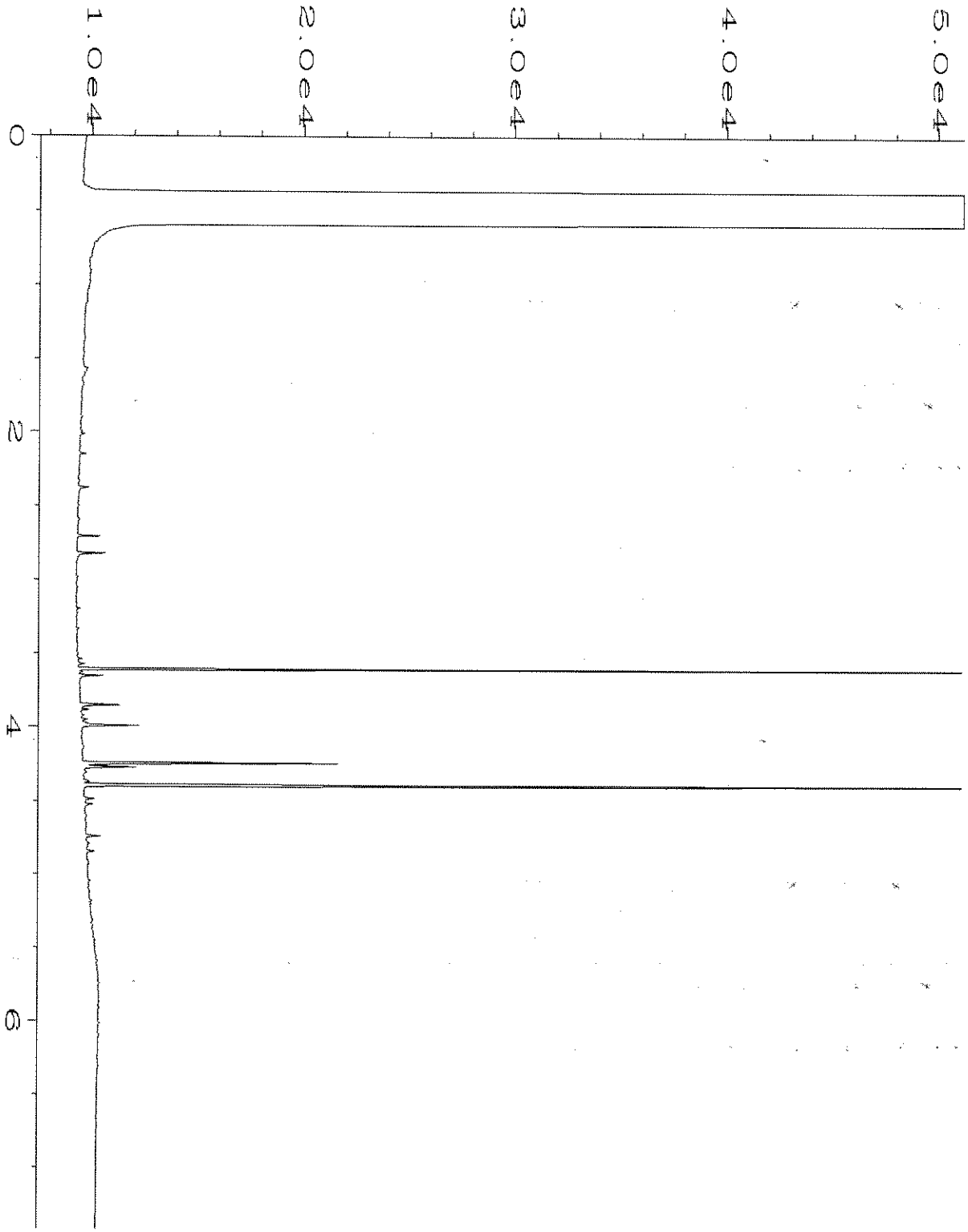
Operator : TL
Instrument : GC1
Sample Name : 912081-02
Run Time Bar Code:
Acquired on : 06 Dec 19 05:07 PM
Report Created on: 09 Dec 19 09:21 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



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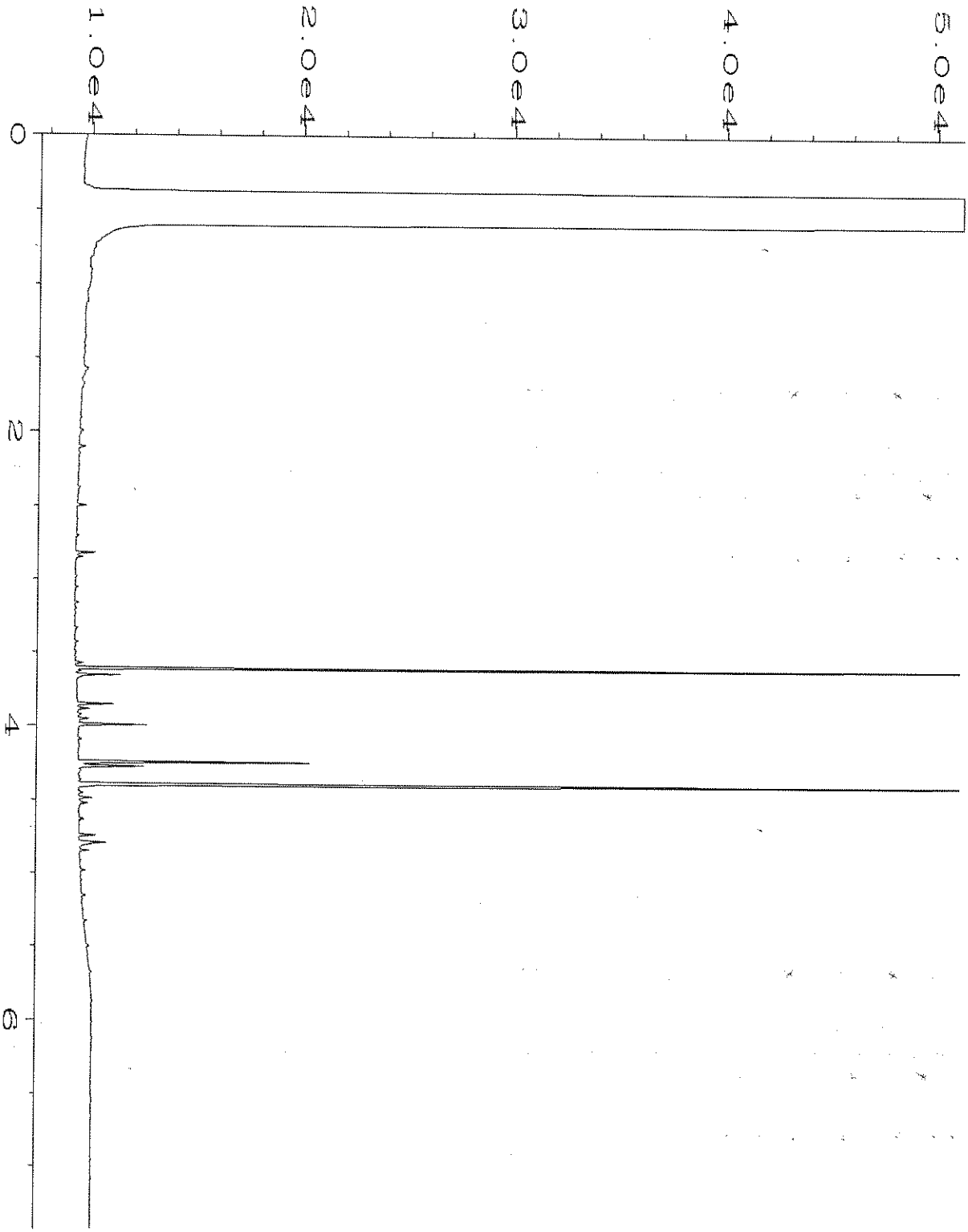
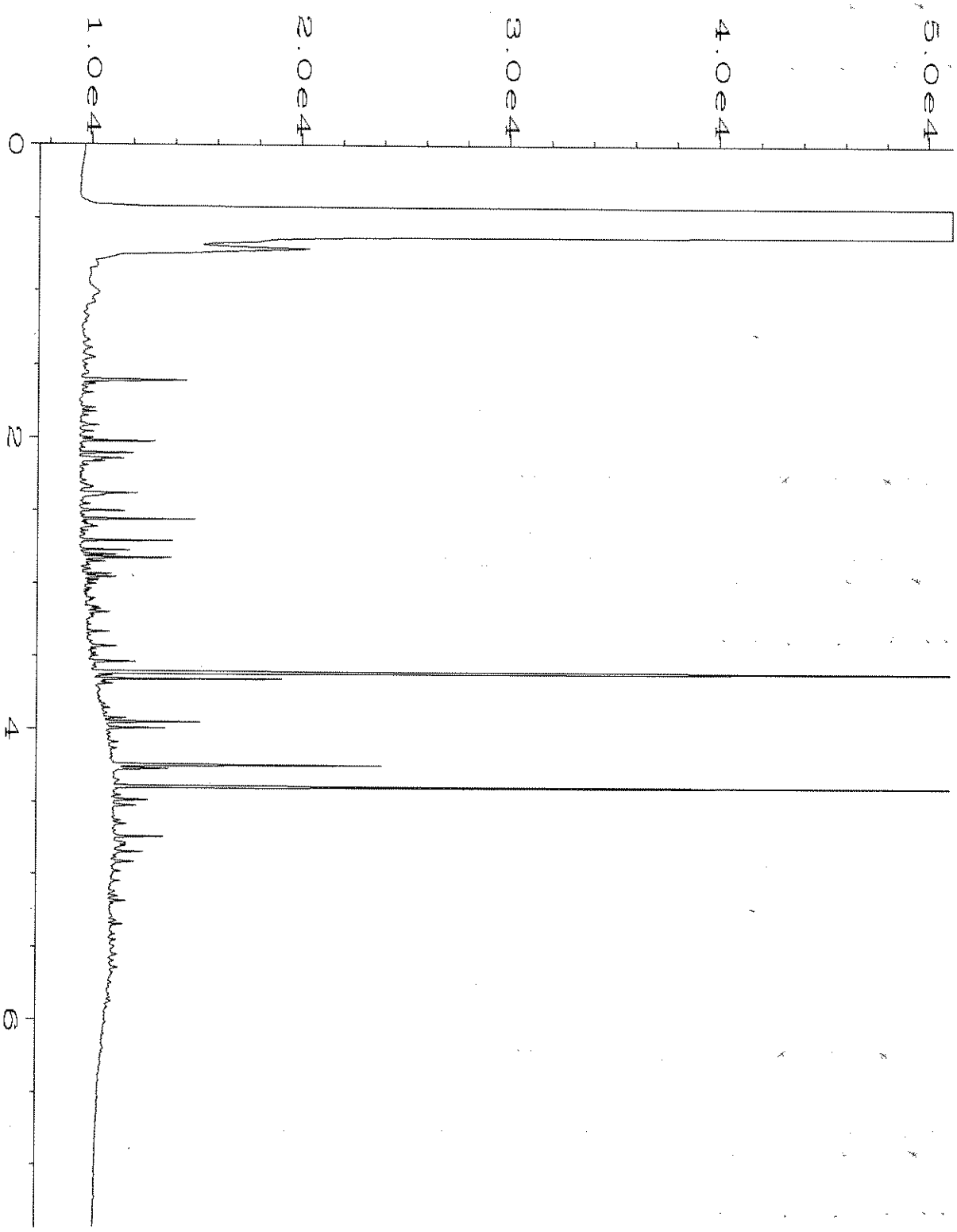
Operator : TL
Instrument : GC1
Sample Name : 912081-03
Run Time Bar Code:
Acquired on : 06 Dec 19 05:19 PM
Report Created on: 09 Dec 19 09:21 AM

Page Number : 1
Vial Number : 37
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



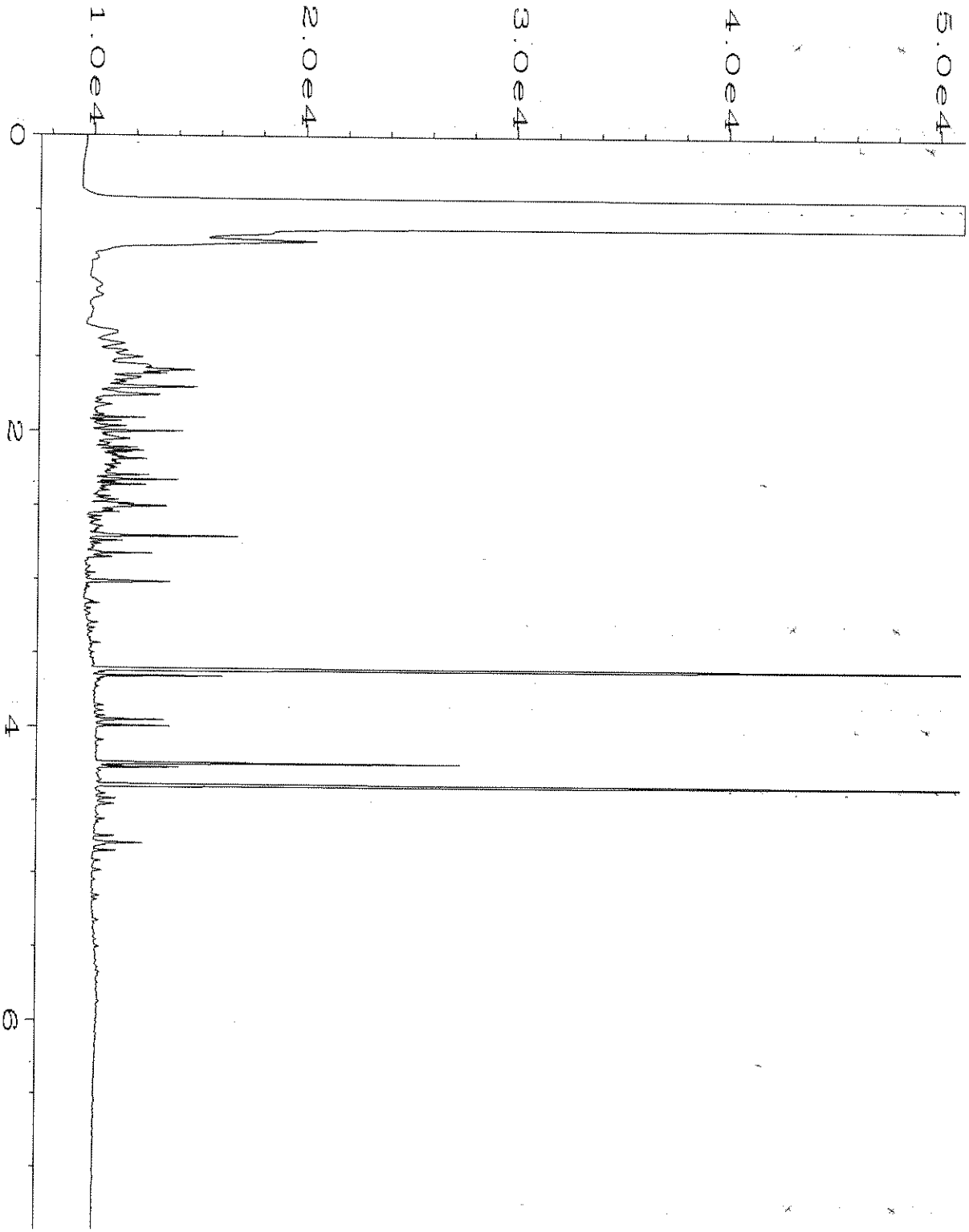
Data File Name : C:\HPCHEM\1\DATA\12-06-19\038F0901.D
Operator : TL
Instrument : GC1
Sample Name : 912081-04
Run Time Bar Code:
Acquired on : 06 Dec 19 05:30 PM
Report Created on: 09 Dec 19 09:21 AM

Page Number : 1
Vial Number : 38
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\1\DATA\12-06-19\039F0901.D
Operator : TL
Instrument : GC1
Sample Name : 912081-06
Run Time Bar Code:
Acquired on : 06 Dec 19 05:42 PM
Report Created on: 09 Dec 19 09:21 AM

Page Number : 1
Vial Number : 39
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



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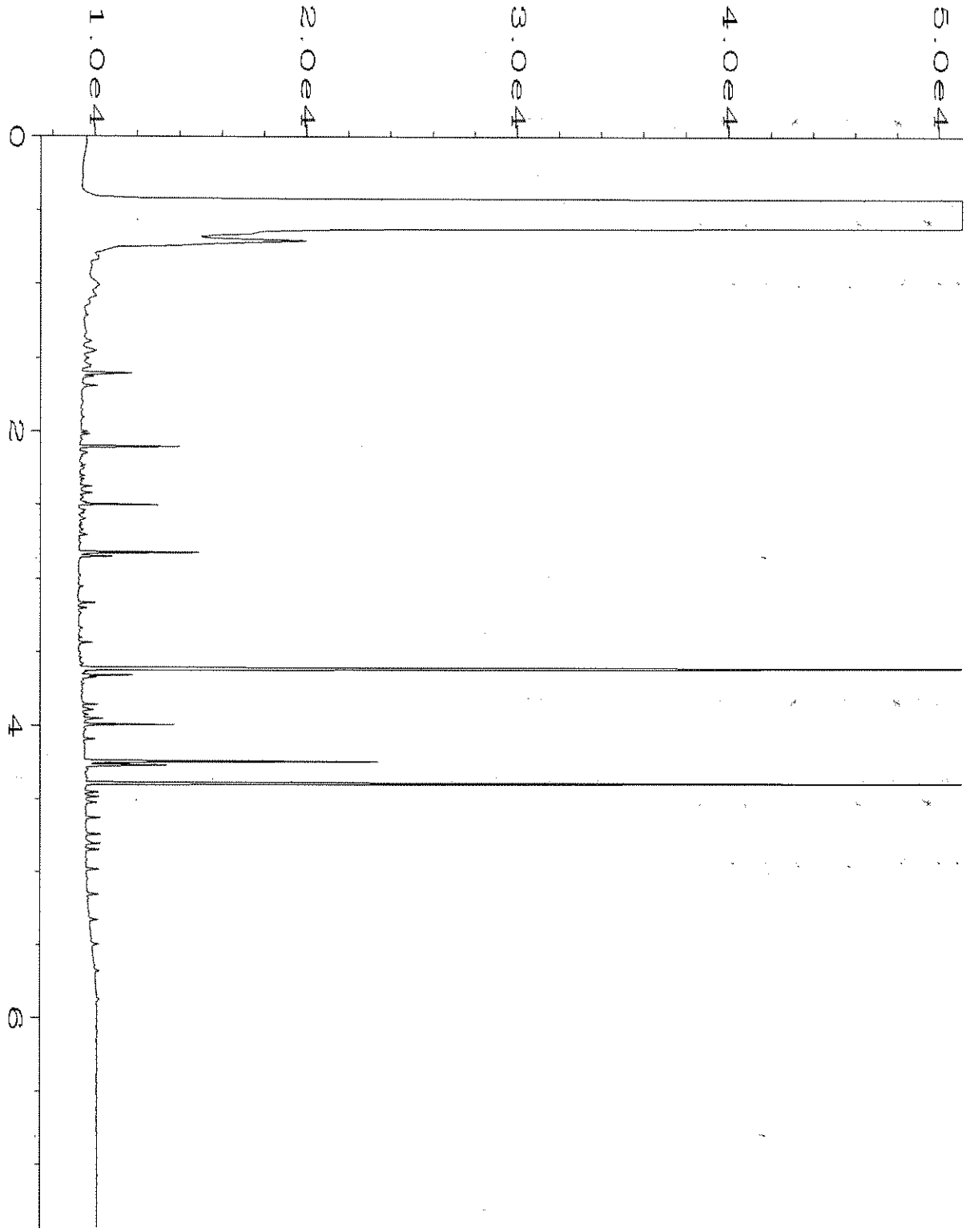
Operator : TL
Instrument : GC1
Sample Name : 912081-07
Run Time Bar Code:
Acquired on : 06 Dec 19 05:53 PM
Report Created on: 09 Dec 19 09:22 AM

Page Number : 1
Vial Number : 40
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



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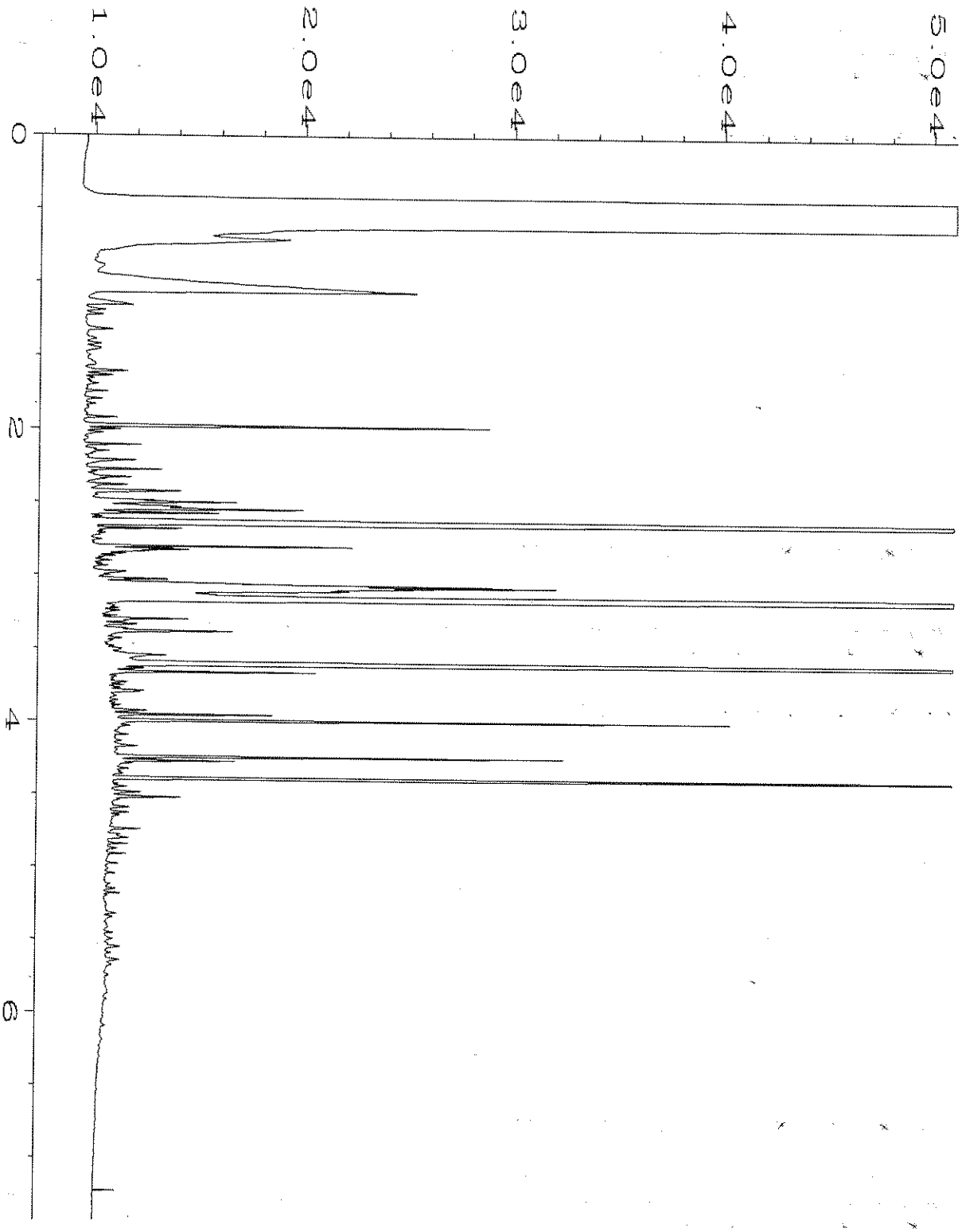
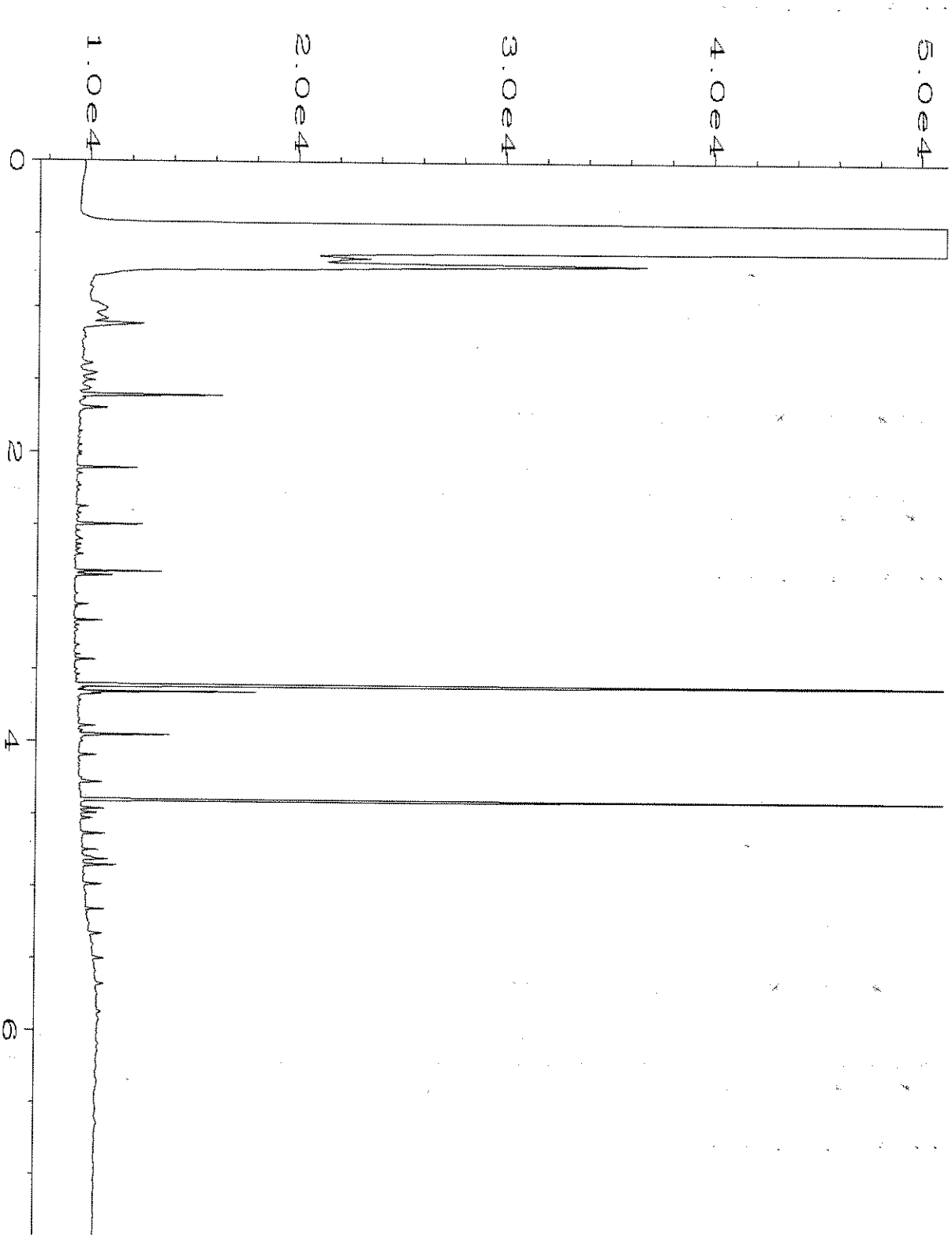
Operator : TL
Instrument : GC1
Sample Name : 912081-08
Run Time Bar Code:
Acquired on : 06 Dec 19 06:05 PM
Report Created on: 09 Dec 19 09:22 AM

Page Number : 1
Vial Number : 41
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



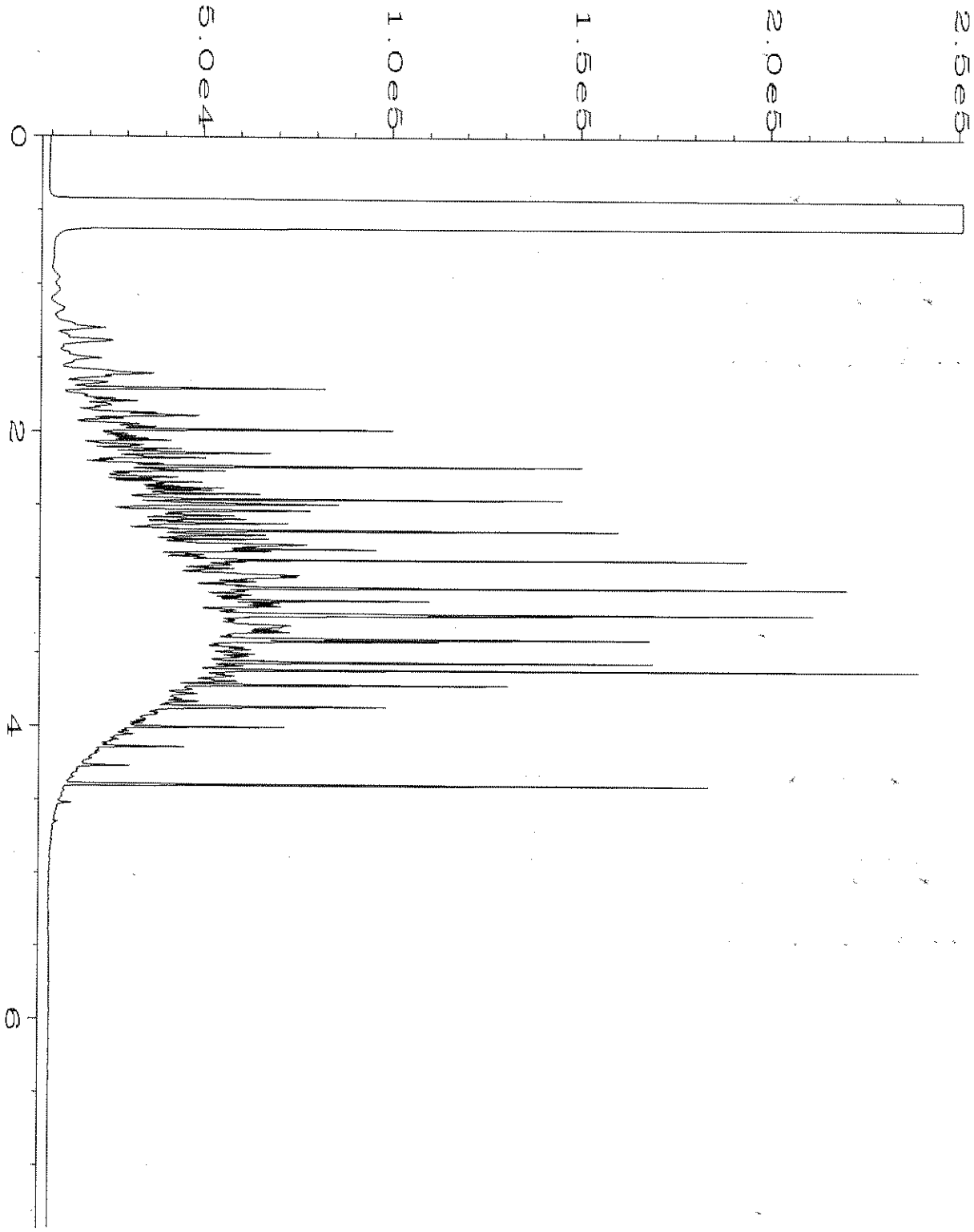
Data File Name : C:\HPCHEM\1\DATA\12-06-19\042F0901.D
Operator : TL
Instrument : GC1
Sample Name : 912081-09
Run Time Bar Code:
Acquired on : 06 Dec 19 06:16 PM
Report Created on: 09 Dec 19 09:22 AM

Page Number : 1
Vial Number : 42
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name : C:\HPCHEM\1\DATA\12-06-19\032F0901.D
Operator : TL
Instrument : GC1
Sample Name : 09-2981 mb
Run Time Bar Code:
Acquired on : 06 Dec 19 04:22 PM
Report Created on: 09 Dec 19 09:22 AM

Page Number : 1
Vial Number : 32
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH



Data File Name	: C:\HPCHEM\1\DATA\12-06-19\005F1201.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 5
Sample Name	: 1000 Dx 58-146C	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 12
Acquired on	: 06 Dec 19 08:10 PM	Instrument Method	: DX.MTH
Report Created on	: 09 Dec 19 09:20 AM	Analysis Method	: DEFAULT.MTH

912081

SAMPLE CHAIN OF CUSTODY

ME 12-05-19

Page # 1 / 1 VW4 05

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) Sarah Welter

PROJECT NAME/NO. Troy Laundry Property

PO # 0731-004-08

REMARKS On prop

EIM Y LS 12/11/19 mc

TURNAROUND TIME

AI 3

(Standard (2 Weeks))

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW04-20191205	MW04	-	01A-M	12/5/19	1141	W	13	X	X	X	X	X	X	X	X		
MW07-20191205	MW07	-	02A-N	12/5/19	1240	W	14	X	X	X	X	X	X	X	X	X	
MW13-20191205	MW13	-	03A-G	12/5/19	0920	W	7	X	X	X	X						
MW27-20191205	MW27		04	12/5/19	0907	W	7	X	X	X	X						
MW31-20191205	MW31		05A-C	12/5/19	1133	W	3				X						
MW15-20191205	MW15		06A-G	12/5/19	1347	W	7	X	X	X	X						
MW28-20191204	MW28		07A-M	12/4/19	1443	W	13	X	X	X	X	X	X	X	X		
MW01-20191205	MW01		08A-G	12/5/19	1003	W	7	X	X	X	X						
MW26-20191205	MW26		09A-N	12/5/19	1048	W	14	X	X	X	X	X	X	X	X	X	
MW32-20191205	MW32		10A-C	12/5/19	1021	W	3				X						
MW33-20191205	MW33		11	12/5/19	1340	W	3				X						
																	Samples received at 3 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	12/5/19	1515
Received by:		D of VO	FedEx	12-5-19	1515
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 16, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included is the amended report from the testing of material submitted on December 5, 2019 from the SOU_0731-004-08_ 20191205, F&BI 912082 project. Per your request, the project ID was updated.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1213R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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Seattle, WA 98119-2029
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fbi@isomedia.com
www.friedmanandbruya.com

December 13, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on December 5, 2019 from the SOU_0731-004-08_ 20191205, F&BI 912082 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1213R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 5, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-08_ 20191205, F&BI 912082 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
912082 -01	MW29-20191204
912082 -02	MW30-20191204

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW29-20191204	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912082-01
Date Analyzed:	12/10/19	Data File:	120958.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	98	50	150
4-Bromofluorobenzene	99	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.40
Chloroethane	<1
1,1-Dichloroethene	1.6
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	26
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	12
Tetrachloroethene	16

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW30-20191204	Client:	SoundEarth Strategies
Date Received:	12/05/19	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	912082-02
Date Analyzed:	12/10/19	Data File:	120959.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	50	150
Toluene-d8	97	50	150
4-Bromofluorobenzene	100	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	11
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	2.0
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-08_ 20191205
Date Extracted:	12/09/19	Lab ID:	09-2967 mb
Date Analyzed:	12/09/19	Data File:	120910.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	50	150
Toluene-d8	101	50	150
4-Bromofluorobenzene	101	50	150

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/13/19
Date Received: 12/05/19
Project: SOU_0731-004-08_ 20191205, F&BI 912082

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 912074-12 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	<0.2	100	61-139
Chloroethane	ug/L (ppb)	50	<1	96	55-149
1,1-Dichloroethene	ug/L (ppb)	50	<1	93	71-123
Methylene chloride	ug/L (ppb)	50	<5	121	61-126
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	95	72-122
1,1-Dichloroethane	ug/L (ppb)	50	<1	97	79-113
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	97	63-126
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	104	70-119
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	97	75-121
Trichloroethene	ug/L (ppb)	50	<1	100	73-122
Tetrachloroethene	ug/L (ppb)	50	<1	99	40-155

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	100	102	70-128	2
Chloroethane	ug/L (ppb)	50	100	94	66-149	6
1,1-Dichloroethene	ug/L (ppb)	50	91	91	72-121	0
Methylene chloride	ug/L (ppb)	50	99	99	63-132	0
trans-1,2-Dichloroethene	ug/L (ppb)	50	97	98	76-118	1
1,1-Dichloroethane	ug/L (ppb)	50	98	99	77-119	1
cis-1,2-Dichloroethene	ug/L (ppb)	50	96	98	76-119	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	109	109	75-116	0
1,1,1-Trichloroethane	ug/L (ppb)	50	100	101	80-116	1
Trichloroethene	ug/L (ppb)	50	101	102	72-119	1
Tetrachloroethene	ug/L (ppb)	50	101	101	78-109	0

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

912082

SAMPLE CHAIN OF CUSTODY

ME 12-05-19

Page # 1 of 1 VW

Send Report To: Tom Cammarata cc: Logan Schumacher

Company: SoundEarth Strategies

Address: 2811 Fairview Ave E, Suite 2000

City, State, ZIP: Seattle, WA 98102

SAMPLERS (signature): Sarah Welter

PROJECT NAME/NO.: Troy Laundry Property

PO #: 0731-004-08 (~~05~~)

REMARKS: off prop

EIM Y per LS 12/12/19

TURNAROUND TIME
- (circled) Standard (2 Weeks)
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ⊗ Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW29-20191204	MW29	—	01A-C	12/4/19	1307	W	3				X						
MW30-20191204	MW30	—	02	12/4/19	1353	W	3				X						

Samples received at 3 °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	12/5/19	1515
Received by:	Dao	D d V0	FeBZ	12-5-19	15:15
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 17, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on December 9, 2019 from the SOU_0731-004-07_ 20191209, F&BI 912134 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1217R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 9, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-07_ 20191209, F&BI 912134 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
912134 -01	ONNI-MW-4-20191208
912134 -02	ONNI-MW-5-20191208

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ONNI-MW-4-20191208	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-07_ 20191209
Date Extracted:	12/11/19	Lab ID:	912134-01
Date Analyzed:	12/12/19	Data File:	121214.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	ONNI-MW-5-20191208	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-07_ 20191209
Date Extracted:	12/11/19	Lab ID:	912134-02
Date Analyzed:	12/12/19	Data File:	121215.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.28
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-07_ 20191209
Date Extracted:	12/11/19	Lab ID:	09-3000 mb
Date Analyzed:	12/12/19	Data File:	121210.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/17/19
Date Received: 12/09/19
Project: SOU_0731-004-07_ 20191209, F&BI 912134

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 912135-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.98	105	36-166
Chloroethane	ug/L (ppb)	50	<1	114	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	93	60-136
Methylene chloride	ug/L (ppb)	50	<5	101	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	35	91 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	99	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	100	60-146
Trichloroethene	ug/L (ppb)	50	<1	90	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	98	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	110	102	50-154	8
Chloroethane	ug/L (ppb)	50	120	110	58-146	9
1,1-Dichloroethene	ug/L (ppb)	50	101	93	67-136	8
Methylene chloride	ug/L (ppb)	50	110	103	39-148	7
trans-1,2-Dichloroethene	ug/L (ppb)	50	109	101	68-128	8
1,1-Dichloroethane	ug/L (ppb)	50	108	101	79-121	7
cis-1,2-Dichloroethene	ug/L (ppb)	50	104	98	80-123	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	107	102	73-132	5
1,1,1-Trichloroethane	ug/L (ppb)	50	106	99	81-125	7
Trichloroethene	ug/L (ppb)	50	97	92	79-113	5
Tetrachloroethene	ug/L (ppb)	50	104	101	76-121	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE CHAIN OF CUSTODY

912134

ME 12/9/19

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (signature) [signature]

PROJECT NAME/NO. Troy Laundry Property

PO # 0731-004-07 (~~05~~)

REMARKS EIM Y per LS 12/12/19 ME

Page # 1 | VW3

TURNAROUND TIME C04

Standard (2 Weeks)

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

⊗ Dispose after 30 days

Return samples

Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
ONNI-MW-4-20191208	ONNI-MW-4	—	01	12/8/19	1152	H2O	7				X						
ONNI-MW-5-20191208	ONNI-MW-5	—	02	12/8/19	1259	H2O	7				X						
					CJT 12/8/19												
																	Samples received at 4 °C

Friedman & Bruya, Inc. (FnB)
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Clare Tochilin	SoundEarth	12/9/19	855
Received by: [signature]	WILSON YANGUAS	FEDEX	12.9.19	855
Relinquished by:				
Received by: [signature]	Nhan Phan	FCBI	12/9/19	1045

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 18, 2019

Tom Cammarata, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Cammarata:

Included are the results from the testing of material submitted on December 9, 2019 from the SOU_0731-004-08_ 20191209, F&BI 912135 project. There are 36 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Logan Schumacher
SOU1218R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 9, 2019 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0731-004-08_ 20191209, F&BI 912135 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
912135 -01	MW17-20191207
912135 -02	MW18-20191207
912135 -03	MW19-20191207
912135 -04	MW20-20191207
912135 -05	MW21-20191207
912135 -06	MW22-20191207
912135 -07	MW23-20191207
912135 -08	MW24-20191207
912135 -09	MW25-20191207
912135 -10	IW04-20191207
912135 -11	IW06-20191207
912135 -12	IW50-20191207
912135 -13	IW61-20191207
912135 -14	IW91-20191207
912135 -15	MW99-20191207

Samples MW18-2019120, MW19-20191207, MW22-20191207, MW23-20191207, MW24-20191207, MW25-20191207, IW04-20191207, IW50-20191207, and IW61-20191207 were sent to Fremont Analytical for sulfate, nitrate, alkalinity, and ferrous iron analyses. In addition, sample MW21-20191207 was sent to Fremont for dissolved gasses and TOC analyses. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135
Date Extracted: 12/09/19
Date Analyzed: 12/10/19 and 12/11/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW17-20191207 912135-01	<1	<1	<1	<3	<100	77
MW18-20191207 912135-02	<1	<1	<1	<3	<100	78
MW19-20191207 912135-03	<1	<1	<1	<3	<100	77
MW20-20191207 912135-04	<1	<1	<1	<3	<100	77
MW21-20191207 912135-05	<1	<1	<1	4.8	300	79
MW22-20191207 912135-06	<1	<1	<1	74	810	80
MW23-20191207 912135-07	<1	<1	<1	<3	<100	59
MW24-20191207 912135-08	<1	<1	<1	<3	<100	77
MW25-20191207 912135-09	<1	<1	<1	<3	<100	80
IW91-20191207 912135-14	<1	<1	<1	<3	<100	80

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135
Date Extracted: 12/09/19
Date Analyzed: 12/10/19 and 12/11/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW99-20191207 912135-15	<1	<1	<1	<3	<100	79
Method Blank 09-2914 MB	<1	<1	<1	<3	<100	79

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135
Date Extracted: 12/10/19
Date Analyzed: 12/10/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW17-20191207 912135-01	<50	<250	84
MW18-20191207 912135-02	830 x	480 x	ip
MW19-20191207 912135-03	610 x	690 x	86
MW20-20191207 912135-04	80 x	<250	80
MW21-20191207 912135-05	21,000 x	2,100 x	ip
MW22-20191207 912135-06	40,000 x	3,400 x	79
MW23-20191207 912135-07	1,400 x	790 x	ip
MW24-20191207 912135-08	7,100 x	1,400 x	62
MW25-20191207 912135-09	240 x	<250	89
IW91-20191207 912135-14	<50	<250	84

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135
Date Extracted: 12/10/19
Date Analyzed: 12/10/19

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW99-20191207 912135-15	300 x	<250	85
Method Blank 09-3003 MB	<50	<250	81

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW18-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-02 x10
Date Analyzed:	12/12/19	Data File:	912135-02 x10.039
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	13,800
Manganese	9,660

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW19-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-03 x10
Date Analyzed:	12/12/19	Data File:	912135-03 x10.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	13,300
Manganese	9,030

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW22-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-06 x100
Date Analyzed:	12/13/19	Data File:	912135-06 x100.163
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	8,010
Manganese	10,900

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW23-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-07 x100
Date Analyzed:	12/13/19	Data File:	912135-07 x100.164
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	14,600
Manganese	22,100

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW24-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-08 x100
Date Analyzed:	12/13/19	Data File:	912135-08 x100.167
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	10,700
Manganese	20,700

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW25-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-09 x10
Date Analyzed:	12/12/19	Data File:	912135-09 x10.103
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	13,500
Manganese	6,850

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW04-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-10 x100
Date Analyzed:	12/13/19	Data File:	912135-10 x100.168
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	15,600
Manganese	11,700

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW50-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-12 x10
Date Analyzed:	12/12/19	Data File:	912135-12 x10.105
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	7,170
Manganese	8,090

Analysis For Total Metals By EPA Method 200.8

Client ID:	IW61-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	912135-13 x100
Date Analyzed:	12/13/19	Data File:	912135-13 x100.169
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	22,300
Manganese	11,000

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/10/19	Lab ID:	I9-776 mb2
Date Analyzed:	12/10/19	Data File:	I9-776 mb2.094
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50
Manganese	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW17-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-01
Date Analyzed:	12/12/19	Data File:	121216.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	2.2
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	3.9
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW18-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-02
Date Analyzed:	12/12/19	Data File:	121217.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.55
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	28
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW19-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-03
Date Analyzed:	12/12/19	Data File:	121218.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.98
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	35
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW20-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-04
Date Analyzed:	12/12/19	Data File:	121219.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	102	63	127
4-Bromofluorobenzene	99	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	3.0
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW21-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-05
Date Analyzed:	12/12/19	Data File:	121220.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.3
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	34
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW22-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-06
Date Analyzed:	12/12/19	Data File:	121221.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	48
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.3
Tetrachloroethene	1.3

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW23-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-07
Date Analyzed:	12/12/19	Data File:	121222.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.89
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	38
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW24-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-08
Date Analyzed:	12/12/19	Data File:	121223.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.94
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	83
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW25-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-09
Date Analyzed:	12/12/19	Data File:	121224.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	94	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.63
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	40
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW04-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-10
Date Analyzed:	12/12/19	Data File:	121225.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.1
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	1.4
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW06-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-11
Date Analyzed:	12/12/19	Data File:	121226.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	1.4

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW50-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-12
Date Analyzed:	12/12/19	Data File:	121227.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	96	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	7.4
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	55
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.6
Tetrachloroethene	4.5

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW61-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-13
Date Analyzed:	12/12/19	Data File:	121228.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	102	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	4.0
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	65
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	1.7
Tetrachloroethene	6.8

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	IW91-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-14
Date Analyzed:	12/12/19	Data File:	121229.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	101	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW99-20191207	Client:	SoundEarth Strategies
Date Received:	12/09/19	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	912135-15
Date Analyzed:	12/12/19	Data File:	121230.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	95	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.58
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	36
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0731-004-08_ 20191209
Date Extracted:	12/11/19	Lab ID:	09-3000 mb
Date Analyzed:	12/12/19	Data File:	121210.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.2
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<1
1,1,1-Trichloroethane	<1
Trichloroethene	<1
Tetrachloroethene	<1

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING METHOD 8021B AND NWTPH-Gx

Laboratory Code: 912124-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	100	65-118
Toluene	ug/L (ppb)	50	96	72-122
Ethylbenzene	ug/L (ppb)	50	100	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	99	69-134

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	88	63-142	9

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 912133-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	159	106	94	70-130	12
Manganese	ug/L (ppb)	20	4.66	100	98	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	95	85-115
Manganese	ug/L (ppb)	20	95	85-115

Date of Report: 12/18/19
Date Received: 12/09/19
Project: SOU_0731-004-08_ 20191209, F&BI 912135

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260C

Laboratory Code: 912135-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	50	0.98	105	36-166
Chloroethane	ug/L (ppb)	50	<1	114	46-160
1,1-Dichloroethene	ug/L (ppb)	50	<1	93	60-136
Methylene chloride	ug/L (ppb)	50	<5	101	67-132
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	102	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	101	70-128
cis-1,2-Dichloroethene	ug/L (ppb)	50	35	91 b	71-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	99	48-149
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	100	60-146
Trichloroethene	ug/L (ppb)	50	<1	90	66-135
Tetrachloroethene	ug/L (ppb)	50	<1	98	10-226

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	50	110	102	50-154	8
Chloroethane	ug/L (ppb)	50	120	110	58-146	9
1,1-Dichloroethene	ug/L (ppb)	50	101	93	67-136	8
Methylene chloride	ug/L (ppb)	50	110	103	39-148	7
trans-1,2-Dichloroethene	ug/L (ppb)	50	109	101	68-128	8
1,1-Dichloroethane	ug/L (ppb)	50	108	101	79-121	7
cis-1,2-Dichloroethene	ug/L (ppb)	50	104	98	80-123	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	107	102	73-132	5
1,1,1-Trichloroethane	ug/L (ppb)	50	106	99	81-125	7
Trichloroethene	ug/L (ppb)	50	97	92	79-113	5
Tetrachloroethene	ug/L (ppb)	50	104	101	76-121	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

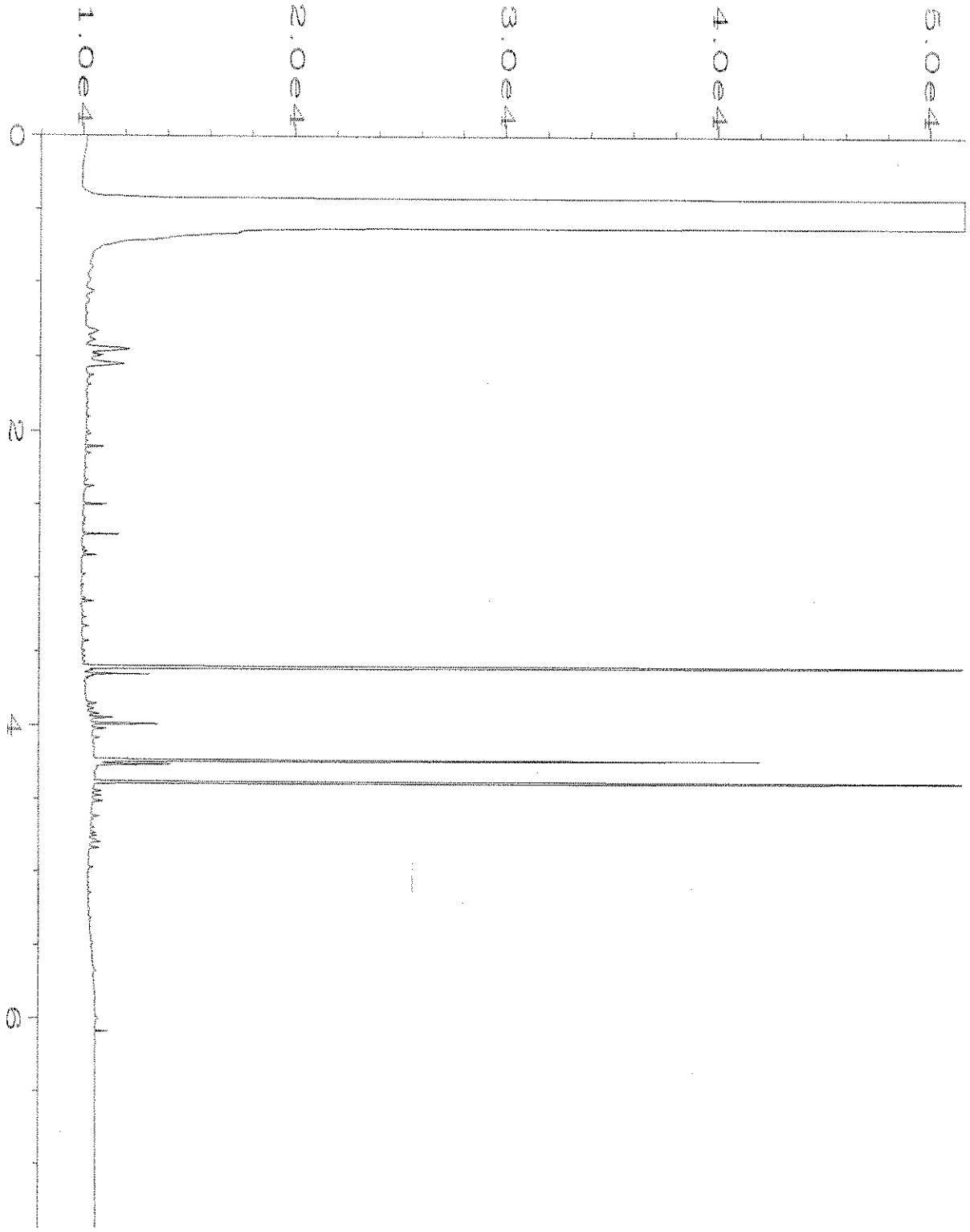
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

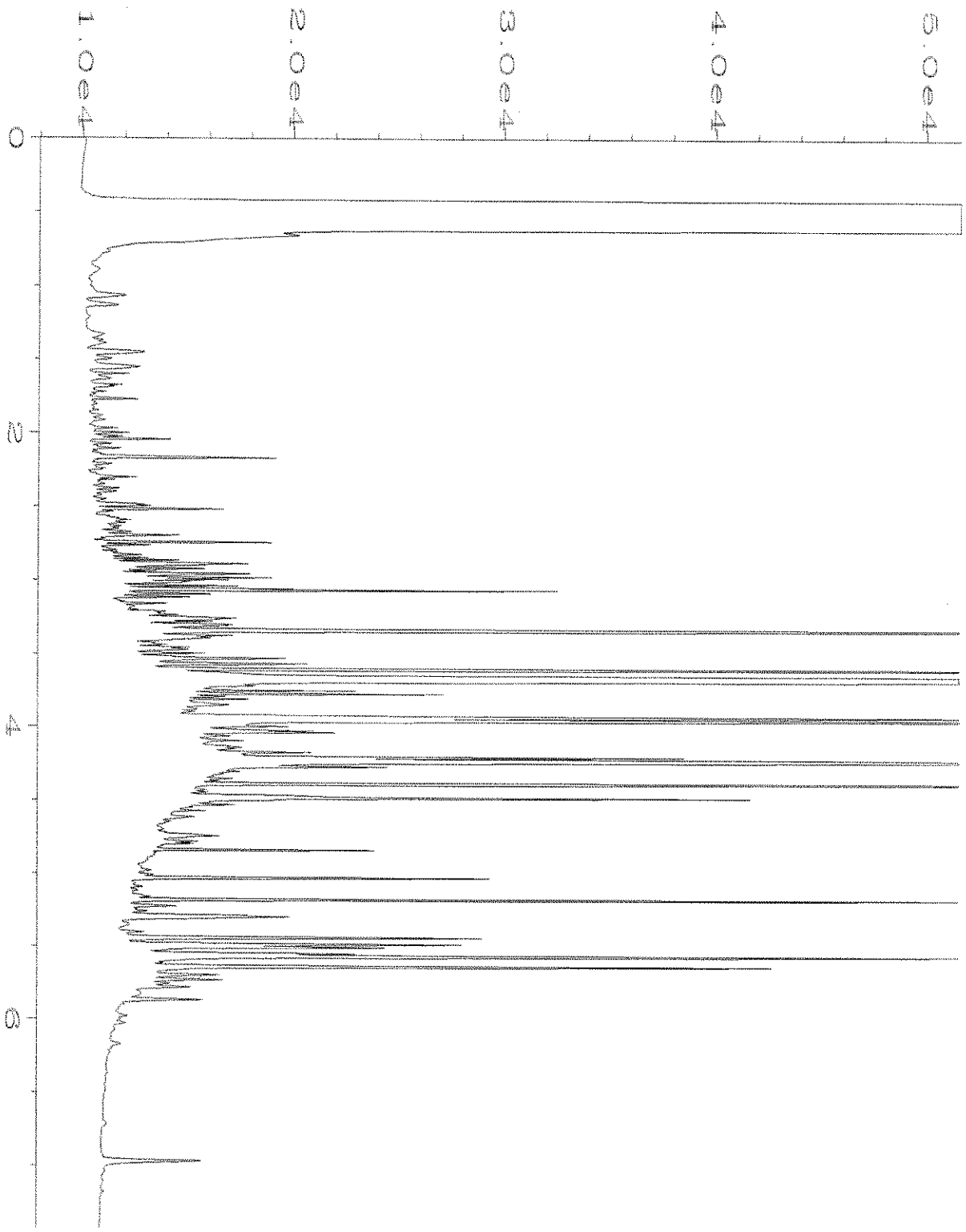
vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

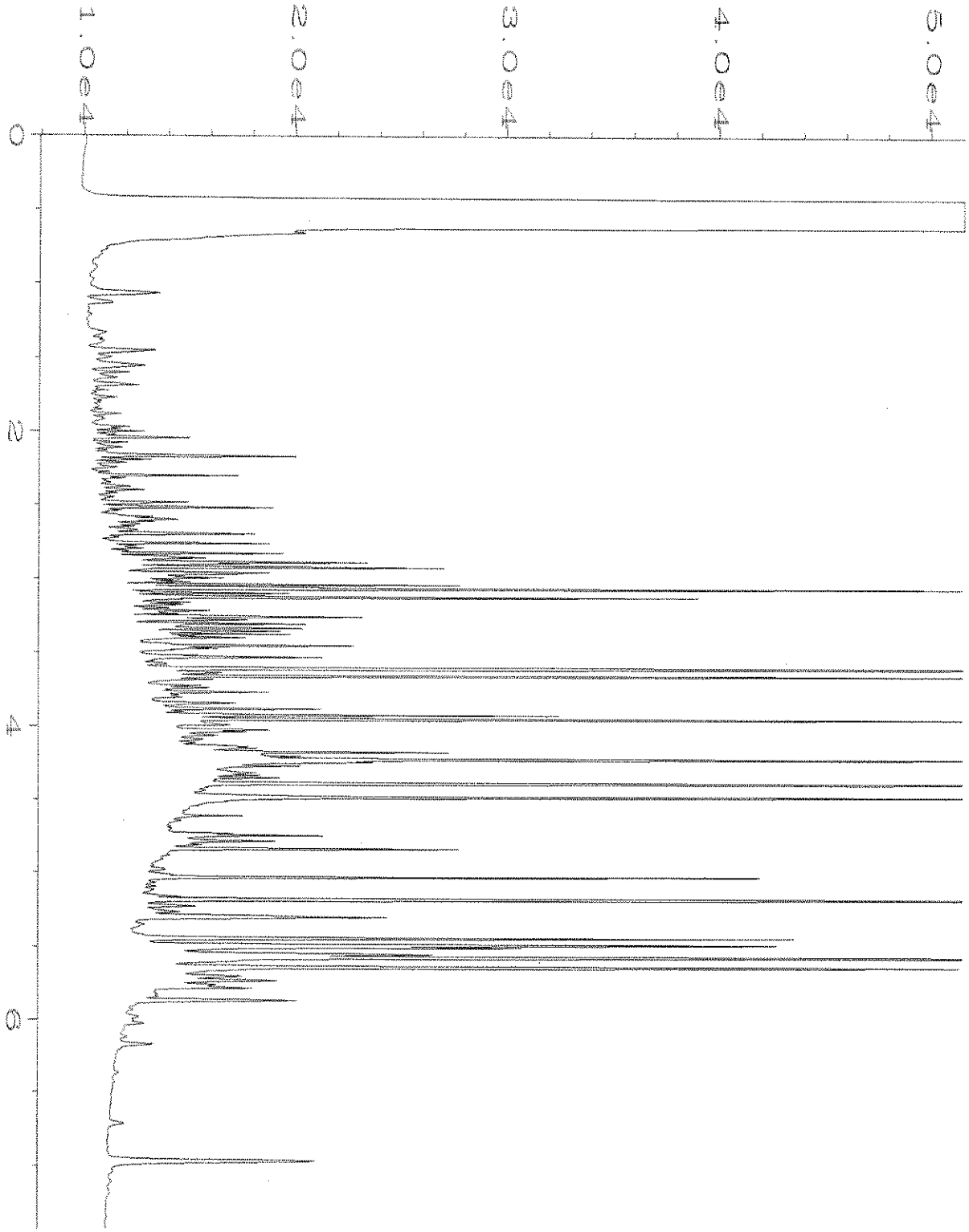


Data File Name : C:\HPCHEM\1\DATA\12-10-19\044F1001.D
Operator : TL
Instrument : GC1
Sample Name : 912135-01
Run Time Bar Code:
Acquired on : 10 Dec 19 06:28 PM
Report Created on: 11 Dec 19 09:37 AM

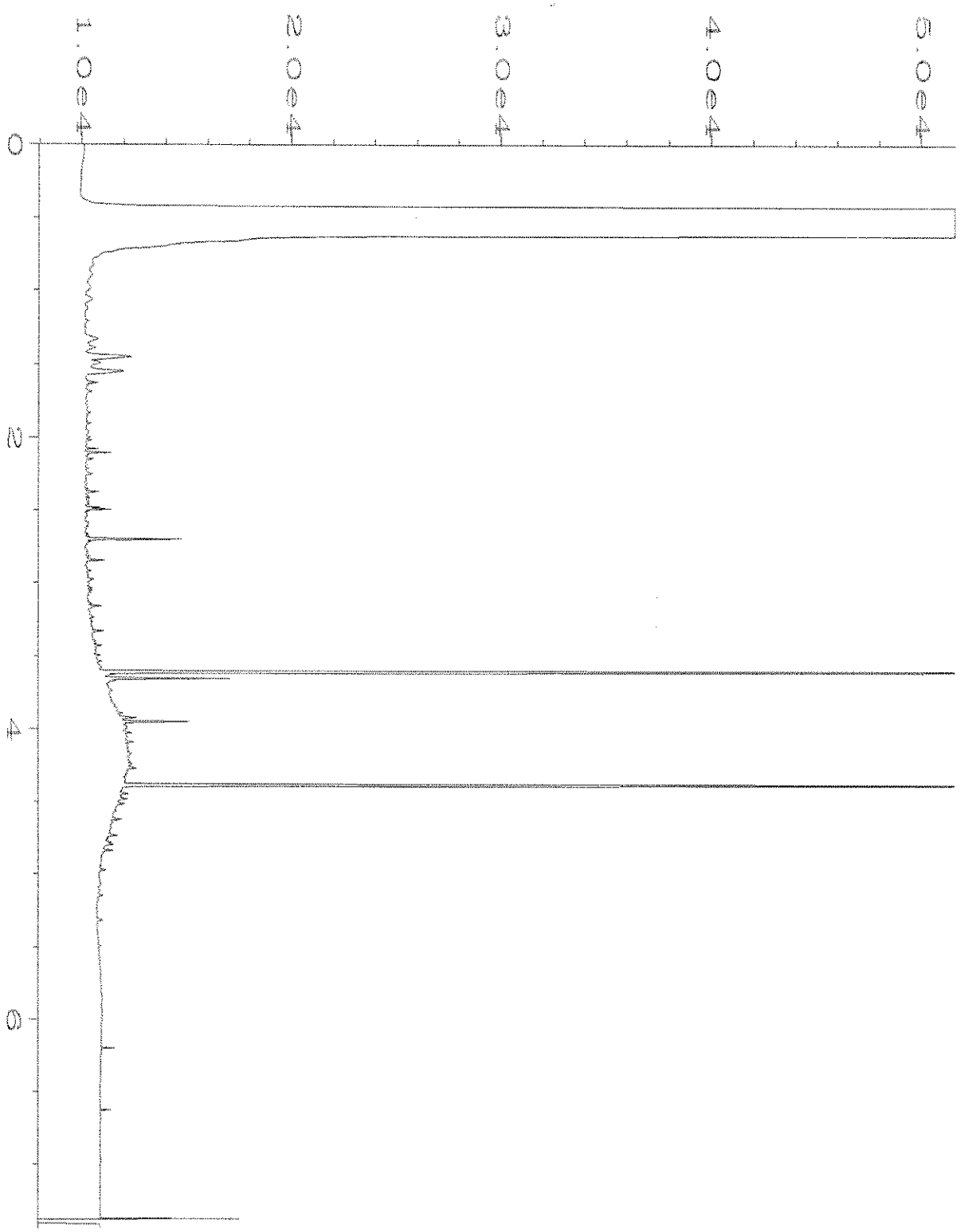
Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DX.MTH



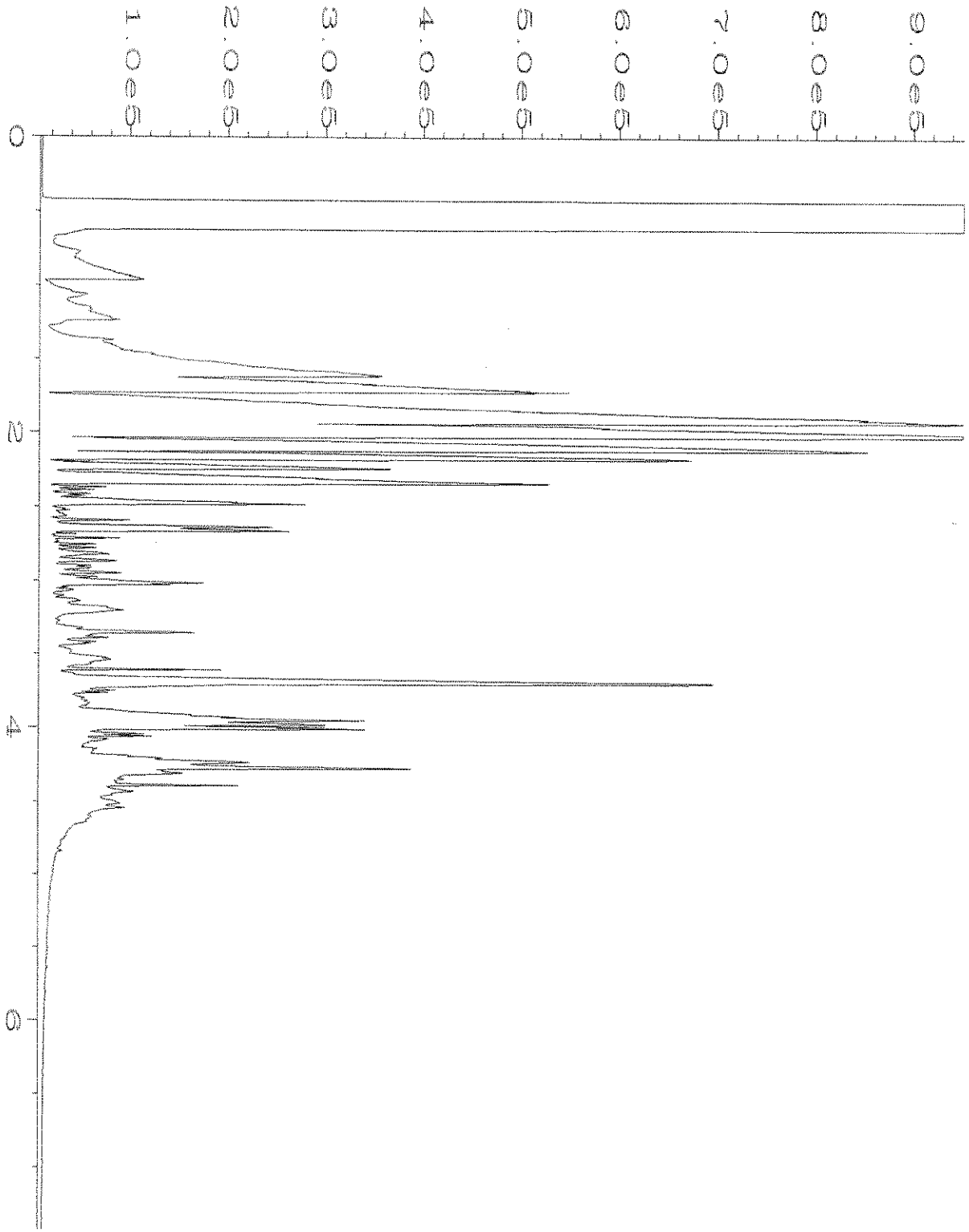
Data File Name	: C:\HPCHEM\1\DATA\12-10-19\045F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 45
Sample Name	: 912135-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 06:39 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:37 AM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\12-10-19\046F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 46
Sample Name	: 912135-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 06:50 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:37 AM	Analysis Method	: DX.MTH

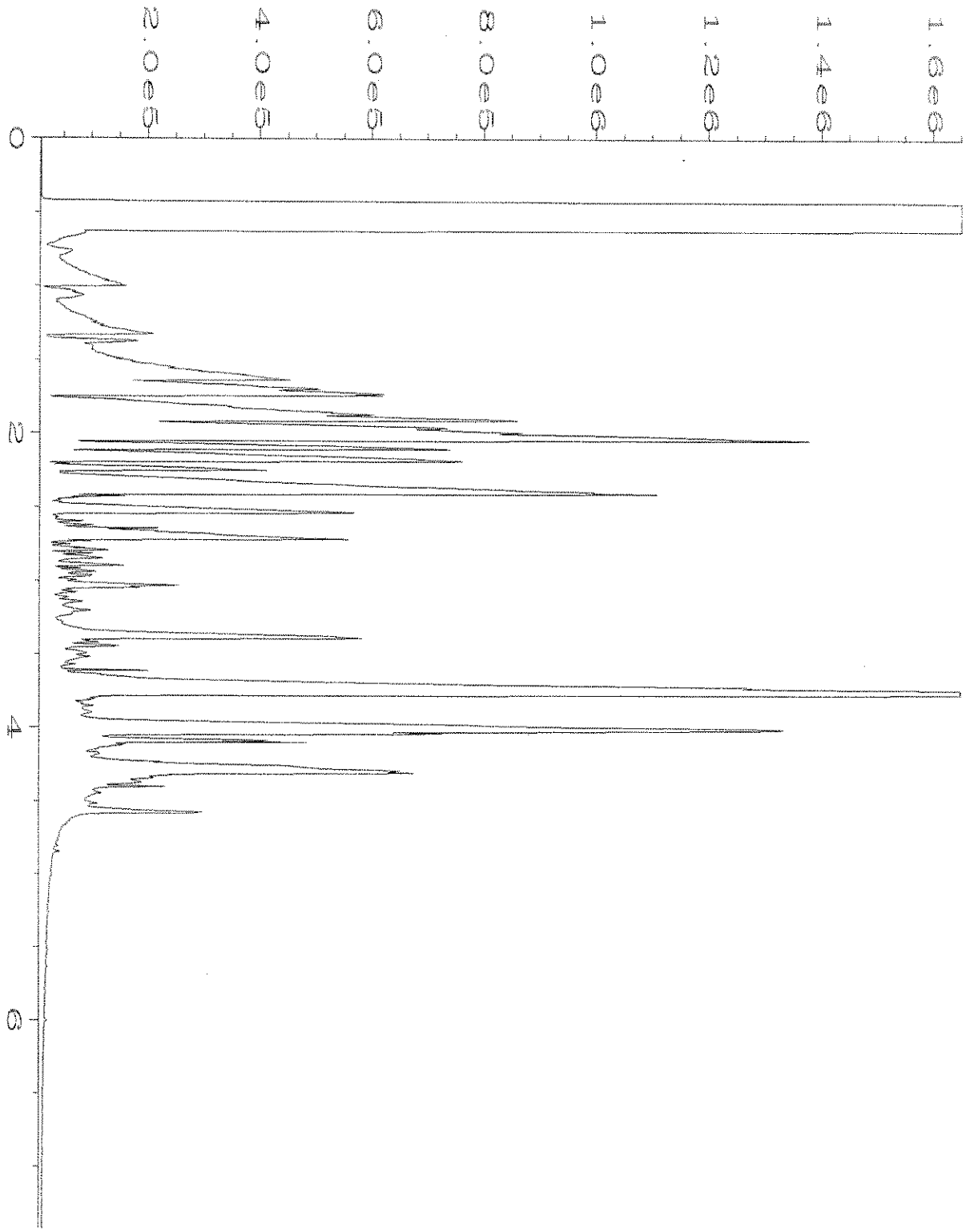


Data File Name	: C:\HPCHEM\1\DATA\12-10-19\047F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 47
Sample Name	: 912135-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 07:02 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:38 AM	Analysis Method	: DX.MTH



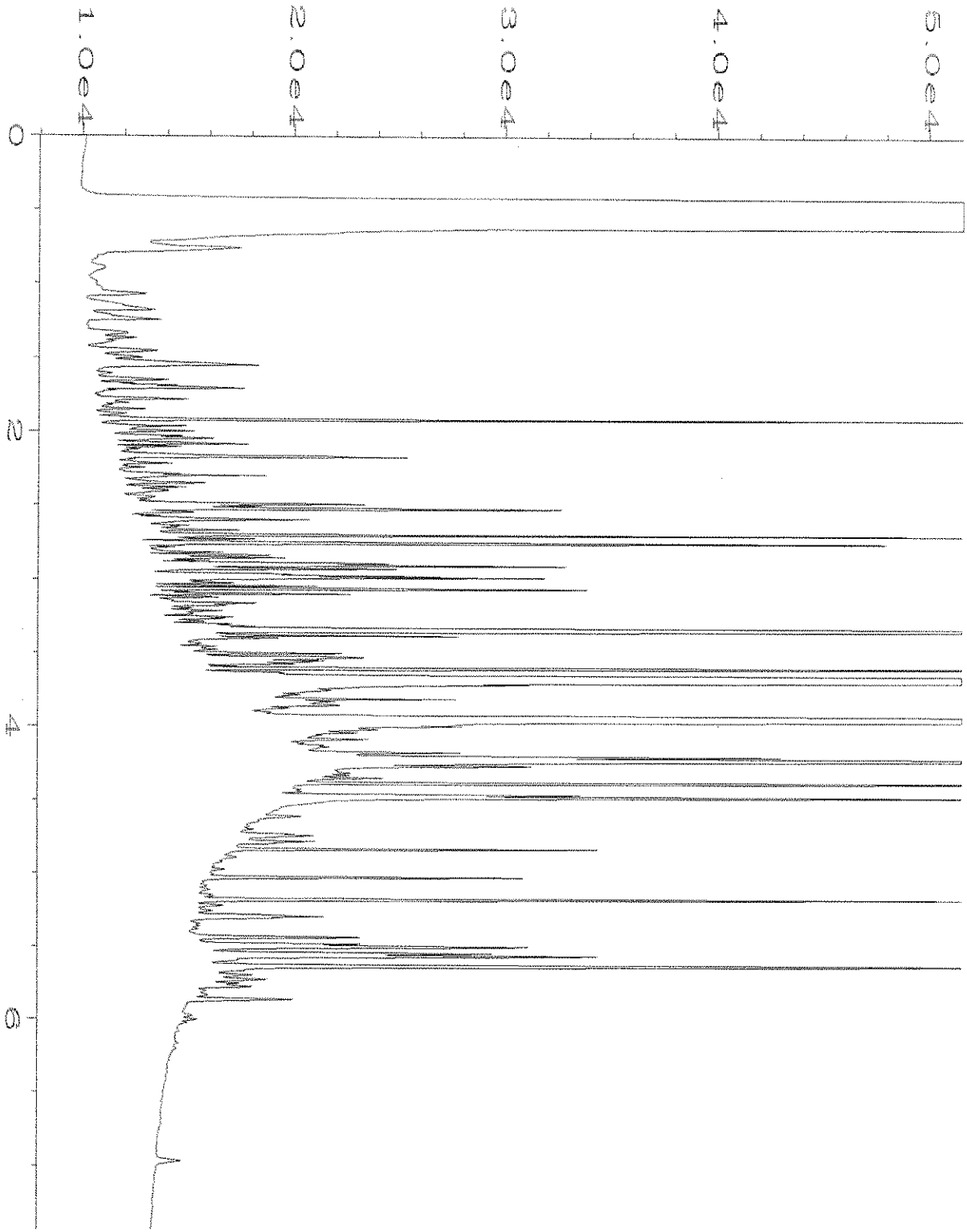
Data File Name : C:\HPCHEM\1\DATA\12-10-19\048F1001.D
Operator : TL
Instrument : GC1
Sample Name : 912135-05
Run Time Bar Code:
Acquired on : 10 Dec 19 07:13 PM
Report Created on: 11 Dec 19 09:38 AM

Page Number : 1
Vial Number : 48
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DX.MTH

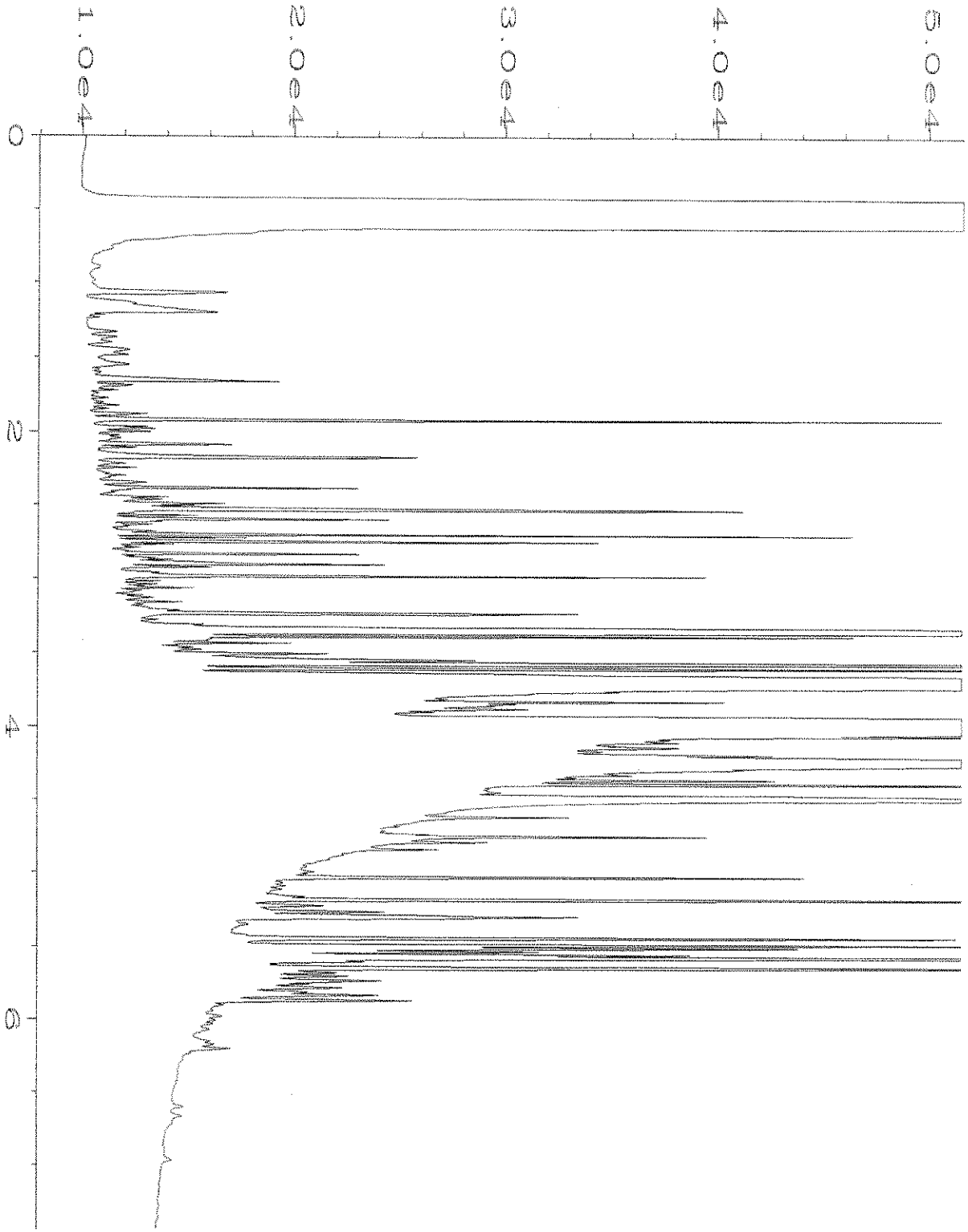


Data File Name : C:\HPCHEM\1\DATA\12-10-19\049F1001.D
Operator : TL
Instrument : GC1
Sample Name : 912135-06
Run Time Bar Code:
Acquired on : 10 Dec 19 07:24 PM
Report Created on: 11 Dec 19 09:39 AM

Page Number : 1
Vial Number : 49
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DX.MTH

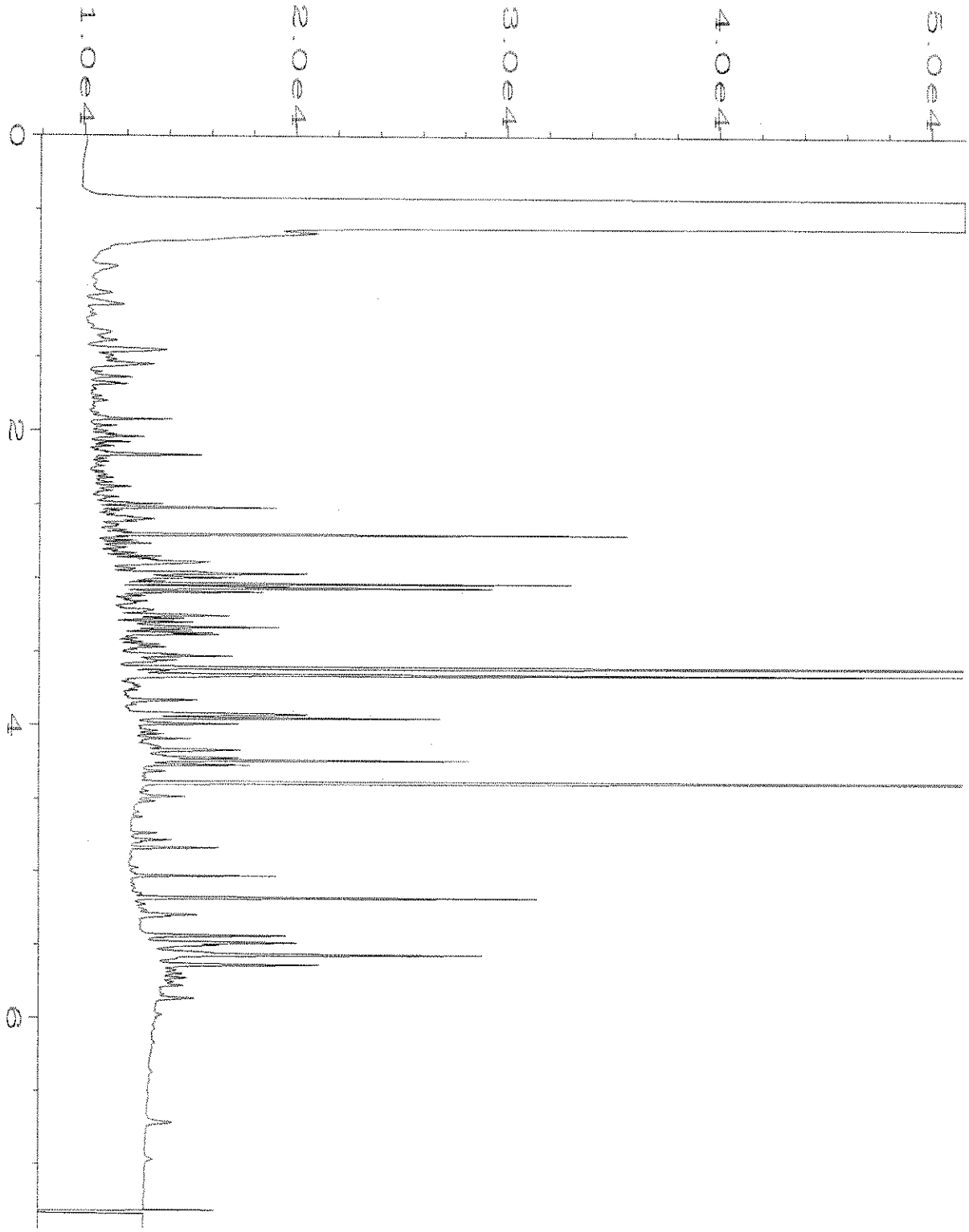


Data File Name	: C:\HPCHEM\1\DATA\12-10-19\050F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 50
Sample Name	: 912135-07	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 07:36 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:39 AM	Analysis Method	: DX.MTH

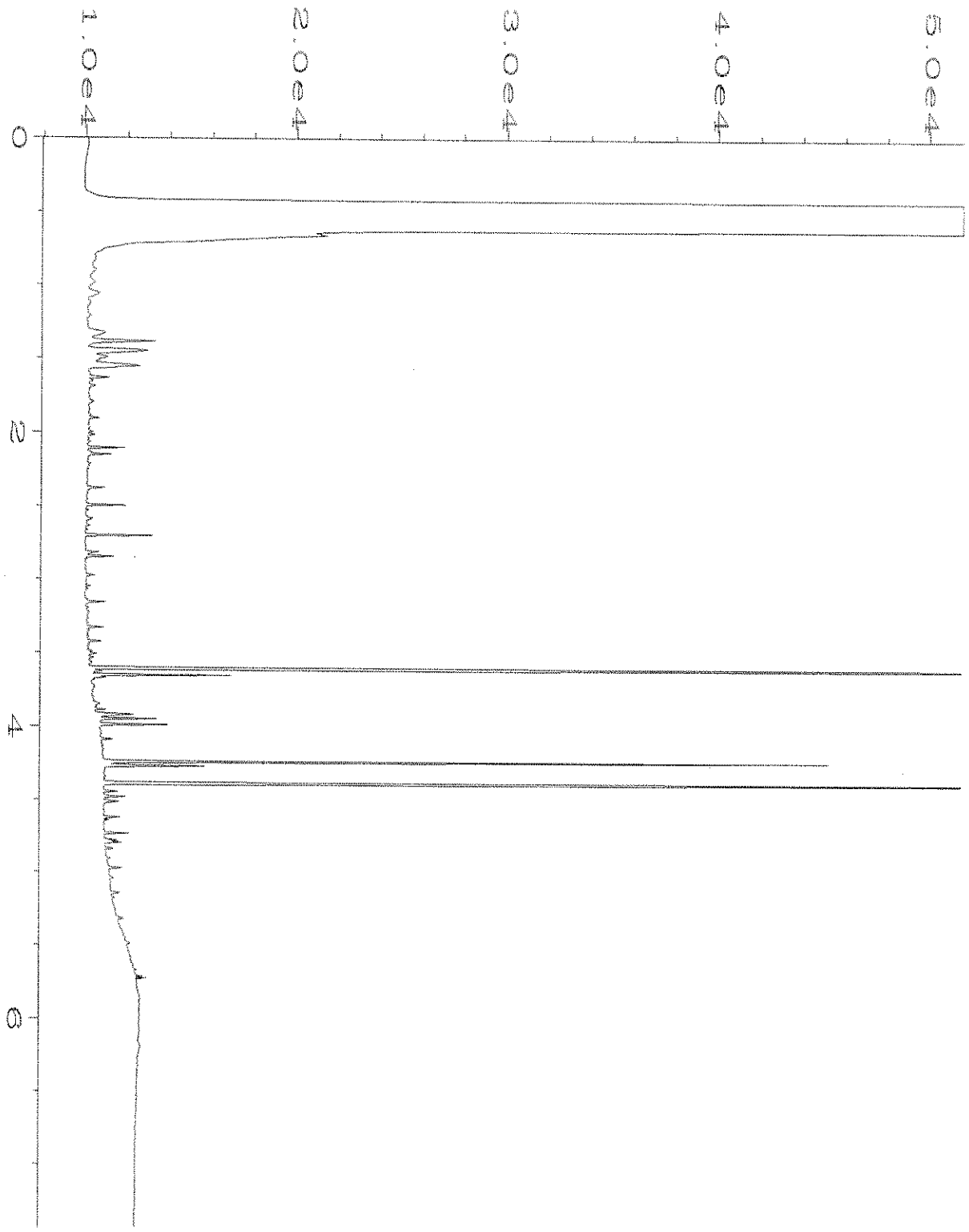


Data File Name : C:\HPCHEM\1\DATA\12-10-19\051F1001.D
Operator : TL
Instrument : GC1
Sample Name : 912135-08
Run Time Bar Code:
Acquired on : 10 Dec 19 07:47 PM
Report Created on: 11 Dec 19 09:39 AM

Page Number : 1
Vial Number : 51
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DX.MTH

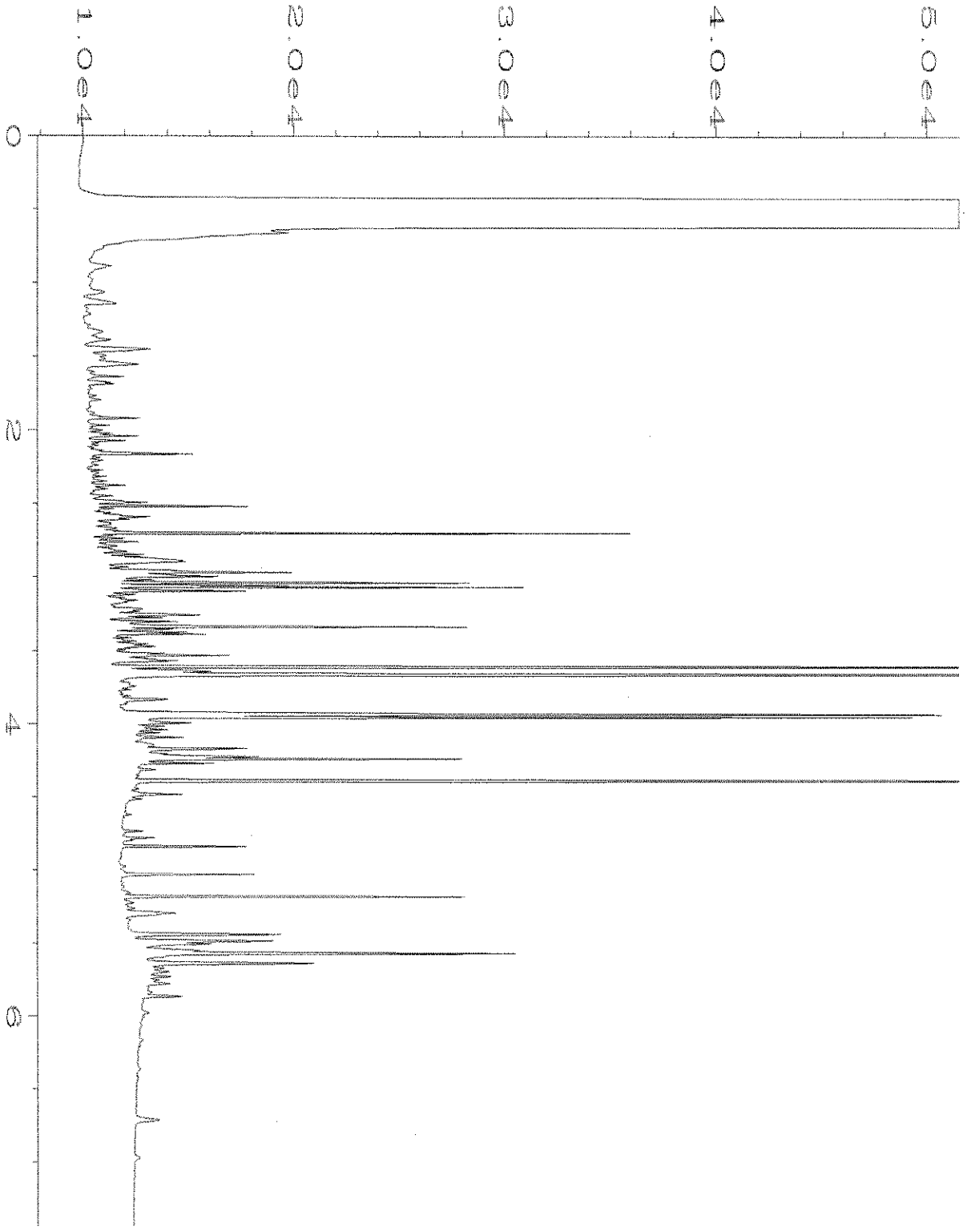


Data File Name	: C:\HPCHEM\1\DATA\12-10-19\052F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 52
Sample Name	: 912135-09	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 07:58 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:39 AM	Analysis Method	: DX.MTH

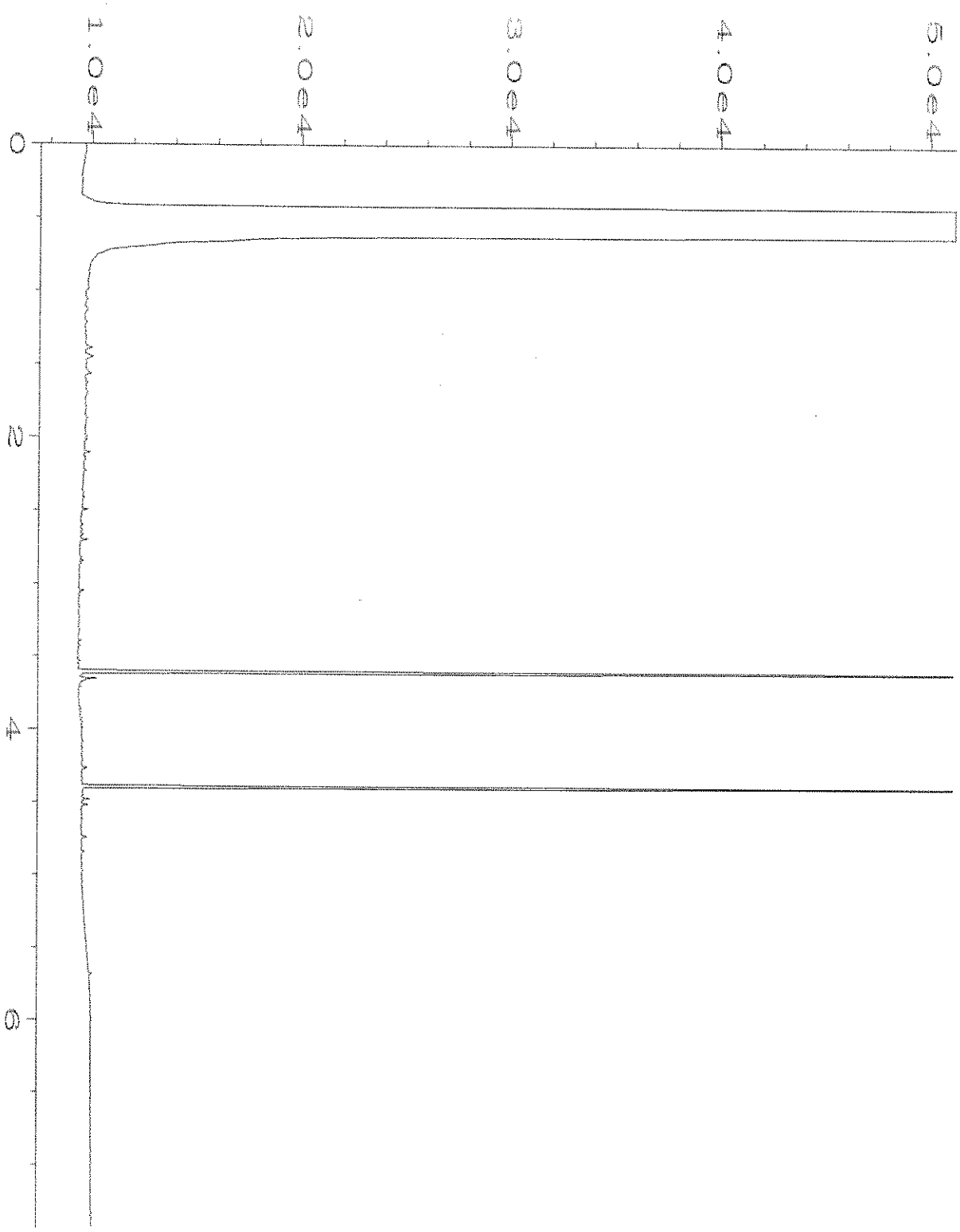


Data File Name : C:\HPCHEM\1\DATA\12-10-19\053F1001.D
Operator : TL
Instrument : GC1
Sample Name : 912135-14
Run Time Bar Code:
Acquired on : 10 Dec 19 08:10 PM
Report Created on: 11 Dec 19 10:05 AM

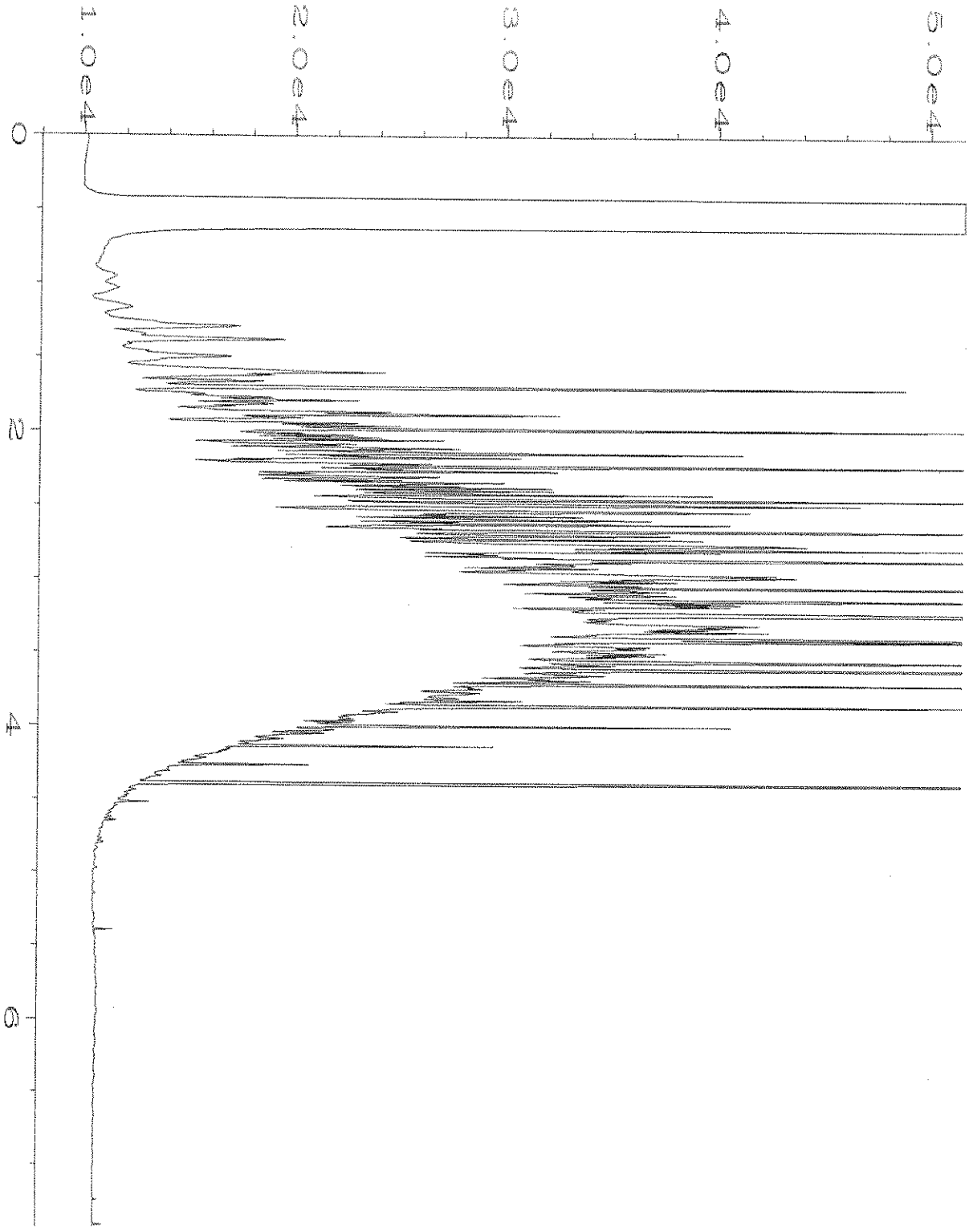
Page Number : 1
Vial Number : 53
Injection Number : 1
Sequence Line : 10
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\12-10-19\054F1001.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 54
Sample Name	: 912135-15	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 10 Dec 19 08:21 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 09:40 AM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\12-10-19\026F0301.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 26
Sample Name	: 09-3003 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 10 Dec 19 01:35 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 10:08 AM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\12-10-19\003F0901.D		
Operator	: TL	Page Number	: 1
Instrument	: GC1	Vial Number	: 3
Sample Name	: 500 Dx 58-146B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 10 Dec 19 05:42 PM	Instrument Method	: DX.MTH
Report Created on	: 11 Dec 19 10:08 AM	Analysis Method	: DX.MTH

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F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

RE: 912135
Work Order Number: 1912112

December 18, 2019

Attention Michael Erdahl:

Fremont Analytical, Inc. received 10 sample(s) on 12/9/2019 for the analyses presented in the following report.

Dissolved Gases by RSK-175
Ferrous Iron by SM3500-Fe B
Ion Chromatography by EPA Method 300.0
Total Alkalinity by SM 2320B
Total Organic Carbon by SM 5310C

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

Date: *12/18/2019*

CLIENT: Friedman & Bruya
Project: 912135
Work Order: 1912112

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1912112-001	MW18-20191207	12/07/2019 2:37 PM	12/09/2019 1:50 PM
1912112-002	MW19-20191207	12/07/2019 4:10 PM	12/09/2019 1:50 PM
1912112-003	MW21-20191207	12/07/2019 11:42 AM	12/09/2019 1:50 PM
1912112-004	MW22-20191207	12/07/2019 9:25 AM	12/09/2019 1:50 PM
1912112-005	MW23-20191207	12/07/2019 10:45 AM	12/09/2019 1:50 PM
1912112-006	MW24-20191207	12/07/2019 1:12 PM	12/09/2019 1:50 PM
1912112-007	MW25-20191207	12/07/2019 4:55 PM	12/09/2019 1:50 PM
1912112-008	IW04-20191207	12/07/2019 2:40 PM	12/09/2019 1:50 PM
1912112-009	IW50-20191207	12/07/2019 12:05 PM	12/09/2019 1:50 PM
1912112-010	IW61-20191207	12/07/2019 10:40 AM	12/09/2019 1:50 PM

Case Narrative

WO#: **1912112**
Date: **12/18/2019**

CLIENT: Friedman & Bruya
Project: 912135

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: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 2:37:00 PM
Project: 912135
Lab ID: 1912112-001
Matrix: Water
Client Sample ID: **MW18-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	2.23	0.173	D	mg/L	20	12/3/2020 7:17:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:11:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:11:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/10/2019 4:04:00 PM
Sulfate	ND	0.300		mg/L	1	12/10/2019 4:04:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56004		Analyst: SS
Total Organic Carbon	9.61	0.500	B	mg/L	1	12/13/2019 7:07:00 PM

NOTES:
B - Detection in sample is 10x greater than detection in Method Blank and CCB. No further action required.

Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	497	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	15.6	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 4:10:00 PM
Project: 912135
Lab ID: 1912112-002
Matrix: Water
Client Sample ID: **MW19-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	6.52	0.863	D	mg/L	100	12/3/2020 7:20:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:14:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:14:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/11/2019 1:06:00 PM
Sulfate	ND	0.300		mg/L	1	12/11/2019 1:06:00 PM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	473	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	12.6	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 11:42:00 AM
Project: 912135
Lab ID: 1912112-003
Matrix: Water
Client Sample ID: **MW21-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	3.98	0.173	D	mg/L	20	12/3/2020 6:55:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:16:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:16:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56080		Analyst: SS
Total Organic Carbon	110	2.00	D	mg/L	4	12/17/2019 11:58:00 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 9:25:00 AM
Project: 912135
Lab ID: 1912112-004
Matrix: Water
Client Sample ID: **MW22-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	5.37	0.863	D	mg/L	100	12/3/2020 7:23:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:19:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:19:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.200	HD	mg/L	2	12/10/2019 6:04:00 PM
Sulfate	0.762	0.600	D	mg/L	2	12/10/2019 6:04:00 PM
NOTES: Diluted due to matrix.						
Total Organic Carbon by SM 5310C				Batch ID: R56080		Analyst: SS
Total Organic Carbon	318	5.00	D	mg/L	10	12/18/2019 2:06:00 AM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	283	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	7.41	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 10:45:00 AM
Project: 912135
Lab ID: 1912112-005
Matrix: Water
Client Sample ID: **MW23-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	2.57	0.173	D	mg/L	20	12/3/2020 7:00:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:23:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:23:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.200	HD	mg/L	2	12/10/2019 6:27:00 PM
Sulfate	0.876	0.600	D	mg/L	2	12/10/2019 6:27:00 PM
NOTES: Diluted due to matrix.						
Total Organic Carbon by SM 5310C				Batch ID: R56004		Analyst: SS
Total Organic Carbon	17.4	0.500	B	mg/L	1	12/13/2019 9:53:00 PM
NOTES: B - Detection in sample is 10x greater than detection in Method Blank and CCB. No further action required.						
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	614	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	13.8	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 1:12:00 PM
Project: 912135
Lab ID: 1912112-006
Matrix: Water
Client Sample ID: **MW24-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	3.96	0.863	D	mg/L	100	12/3/2020 7:26:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:25:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:25:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/11/2019 1:29:00 PM
Sulfate	ND	0.300		mg/L	1	12/11/2019 1:29:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56004		Analyst: SS
Total Organic Carbon	12.6	0.500	B	mg/L	1	12/13/2019 10:25:00 PM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	434	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	10.6	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

NOTES:
B - Detection in sample is 10x greater than detection in Method Blank and CCB. No further action required.

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 4:55:00 PM
Project: 912135
Lab ID: 1912112-007
Matrix: Water
Client Sample ID: **MW25-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	7.48	0.863	D	mg/L	100	12/3/2020 7:28:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:31:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:31:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/11/2019 1:53:00 PM
Sulfate	ND	0.300		mg/L	1	12/11/2019 1:53:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56004		Analyst: SS
Total Organic Carbon	6.87	0.500	B	mg/L	1	12/13/2019 10:58:00 PM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	424	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	13.8	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

NOTES:
B - Detection in sample is 10x greater than detection in Method Blank and CCB. No further action required.

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 2:40:00 PM
Project: 912135
Lab ID: 1912112-008
Matrix: Water
Client Sample ID: **IW04-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.200	DH	mg/L	2	12/10/2019 8:23:00 PM
Sulfate	0.912	0.600	D	mg/L	2	12/10/2019 8:23:00 PM
NOTES: Diluted due to matrix.						
Total Organic Carbon by SM 5310C				Batch ID: R56080		Analyst: SS
Total Organic Carbon	94.8	2.00	D	mg/L	4	12/18/2019 1:43:00 PM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	595	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	ND	0.0500	H	mg/L	1	12/9/2019 3:10:20 PM

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 12:05:00 PM
Project: 912135
Lab ID: 1912112-009
Matrix: Water
Client Sample ID: **IW50-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	4.12	0.863	D	mg/L	100	12/3/2020 7:31:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:43:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:43:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/10/2019 8:46:00 PM
Sulfate	11.0	0.300		mg/L	1	12/10/2019 8:46:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56004		Analyst: SS
Total Organic Carbon	6.72	0.500	B	mg/L	1	12/14/2019 12:13:00 AM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	288	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	7.46	0.500	DH	mg/L	10	12/9/2019 3:10:20 PM

NOTES:
B - Detection in sample is 10x greater than detection in Method Blank and CCB. No further action required.

Analytical Report

Work Order: **1912112**
Date Reported: **12/18/2019**

Client: Friedman & Bruya
Collection Date: 12/7/2019 10:40:00 AM
Project: 912135
Lab ID: 1912112-010
Matrix: Water
Client Sample ID: **IW61-20191207**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Gases by RSK-175				Batch ID: R55983		Analyst: AD
Methane	3.86	0.863	D	mg/L	100	12/3/2020 7:34:00 PM
Ethene	ND	0.0151		mg/L	1	12/3/2020 6:47:00 PM
Ethane	ND	0.0162		mg/L	1	12/3/2020 6:47:00 PM
Ion Chromatography by EPA Method 300.0				Batch ID: 26765		Analyst: TN
Nitrate (as N)	ND	0.100	H	mg/L	1	12/11/2019 2:16:00 PM
Sulfate	ND	0.300		mg/L	1	12/11/2019 2:16:00 PM
Total Organic Carbon by SM 5310C				Batch ID: R56080		Analyst: SS
Total Organic Carbon	101	2.00	D	mg/L	4	12/18/2019 2:38:00 AM
Total Alkalinity by SM 2320B				Batch ID: R56026		Analyst: WF
Alkalinity, Total (As CaCO3)	444	2.50		mg/L	1	12/16/2019 1:02:24 PM
Ferrous Iron by SM3500-Fe B				Batch ID: R55828		Analyst: SS
Ferrous Iron	24.8	1.00	DH	mg/L	20	12/9/2019 3:10:20 PM

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Total Alkalinity by SM 2320B

Sample ID: **MB-R56026**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **12/16/2019**			RunNo: **56026**	
Client ID: **MBLKW**	Batch ID: **R56026**					Analysis Date: **12/16/2019**			SeqNo: **1115663**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2.50									

Sample ID: **LCS-R56026**	SampType: **LCS**			Units: **mg/L**		Prep Date: **12/16/2019**			RunNo: **56026**	
Client ID: **LCSW**	Batch ID: **R56026**					Analysis Date: **12/16/2019**			SeqNo: **1115664**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	101	2.50	100.0	0	101	94.3	116				

Sample ID: **1912112-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **12/16/2019**			RunNo: **56026**	
Client ID: **MW18-20191207**	Batch ID: **R56026**					Analysis Date: **12/16/2019**			SeqNo: **1115666**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	502	2.50						497.2	0.977	20	

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Ferrous Iron by SM3500-Fe B

Sample ID: **MB-R55828**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **12/9/2019**			RunNo: **55828**		
Client ID: **MBLKW**	Batch ID: **R55828**					Analysis Date: **12/9/2019**			SeqNo: **1111270**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.0500									

Sample ID: **LCS-R55828**	SampType: **LCS**			Units: **mg/L**		Prep Date: **12/9/2019**			RunNo: **55828**		
Client ID: **LCSW**	Batch ID: **R55828**					Analysis Date: **12/9/2019**			SeqNo: **1111271**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.373	0.0500	0.4000	0	93.2	85	115				

Sample ID: **1912112-001CDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **12/9/2019**			RunNo: **55828**		
Client ID: **MW18-20191207**	Batch ID: **R55828**					Analysis Date: **12/9/2019**			SeqNo: **1111273**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	14.4	0.500						15.63	8.29	20	DH

Sample ID: **1912112-001CMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **12/9/2019**			RunNo: **55828**		
Client ID: **MW18-20191207**	Batch ID: **R55828**					Analysis Date: **12/9/2019**			SeqNo: **1111274**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	18.5	0.500	4.000	15.63	72.8	70	130				DH

Sample ID: **1912112-001CMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **12/9/2019**			RunNo: **55828**		
Client ID: **MW18-20191207**	Batch ID: **R55828**					Analysis Date: **12/9/2019**			SeqNo: **1111275**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	18.2	0.500	4.000	15.63	63.4	70	130	18.54	2.05	20	SDH

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **MB-26765**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **12/10/2019**			RunNo: **55928**	
Client ID: **MBLKW**	Batch ID: **26765**					Analysis Date: **12/10/2019**			SeqNo: **1113330**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100									
Sulfate	ND	0.300									

Sample ID: **LCS-26765**	SampType: **LCS**			Units: **mg/L**		Prep Date: **12/10/2019**			RunNo: **55928**	
Client ID: **LCSW**	Batch ID: **26765**					Analysis Date: **12/10/2019**			SeqNo: **1113332**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.710	0.100	0.7500	0	94.7	90	110				
Sulfate	3.50	0.300	3.750	0	93.3	90	110				

Sample ID: **1912112-001DDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **12/10/2019**			RunNo: **55928**	
Client ID: **MW18-20191207**	Batch ID: **26765**					Analysis Date: **12/10/2019**			SeqNo: **1113334**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	ND	0.100						0		20	H
Sulfate	ND	0.300						0		20	

Sample ID: **1912112-001DMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **12/10/2019**			RunNo: **55928**	
Client ID: **MW18-20191207**	Batch ID: **26765**					Analysis Date: **12/10/2019**			SeqNo: **1113335**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.699	0.100	0.7500	0.05900	85.3	80	120				H
Sulfate	3.61	0.300	3.750	0.2530	89.5	80	120				

Sample ID: **1912112-001DMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **12/10/2019**			RunNo: **55928**	
Client ID: **MW18-20191207**	Batch ID: **26765**					Analysis Date: **12/10/2019**			SeqNo: **1113336**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.657	0.100	0.7500	0.05900	79.7	80	120	0.6990	6.19	20	SH

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Ion Chromatography by EPA Method 300.0

Sample ID: **1912112-001DMSD** SampType: **MSD** Units: **mg/L** Prep Date: **12/10/2019** RunNo: **55928**
Client ID: **MW18-20191207** Batch ID: **26765** Analysis Date: **12/10/2019** SeqNo: **1113336**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	3.39	0.300	3.750	0.2530	83.8	80	120	3.608	6.11	20	

NOTES:
S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range (Nitrate).

Sample ID: **1912128-002ADUP** SampType: **DUP** Units: **mg/L** Prep Date: **12/10/2019** RunNo: **55928**
Client ID: **BATCH** Batch ID: **26765** Analysis Date: **12/10/2019** SeqNo: **1113349**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	5.68	0.100						5.668	0.141	20	E
Sulfate	12.5	0.300						12.47	0.144	20	

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **1912128-002AMS** SampType: **MS** Units: **mg/L** Prep Date: **12/10/2019** RunNo: **55928**
Client ID: **BATCH** Batch ID: **26765** Analysis Date: **12/10/2019** SeqNo: **1113350**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	6.48	0.100	0.7500	5.668	108	80	120				E
Sulfate	16.3	0.300	3.750	12.47	102	80	120				E

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MB-R56004**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **12/13/2019**			RunNo: **56004**		
Client ID: **MBLKW**	Batch ID: **R56004**					Analysis Date: **12/13/2019**			SeqNo: **1115168**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.568	0.500									

Sample ID: **LCS-R56004**	SampType: **LCS**			Units: **mg/L**		Prep Date: **12/13/2019**			RunNo: **56004**		
Client ID: **LCSW**	Batch ID: **R56004**					Analysis Date: **12/13/2019**			SeqNo: **1115169**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.60	0.500	5.000	0	112	88.3	117				B

Sample ID: **1912078-001CDUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **12/13/2019**			RunNo: **56004**		
Client ID: **BATCH**	Batch ID: **R56004**					Analysis Date: **12/13/2019**			SeqNo: **1115171**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.948	0.500						0.9470	0.106	20	B

Sample ID: **1912078-001CMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **12/13/2019**			RunNo: **56004**		
Client ID: **BATCH**	Batch ID: **R56004**					Analysis Date: **12/13/2019**			SeqNo: **1115172**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.92	0.500	5.000	0.9470	99.5	66	142				B

Sample ID: **1912078-001CMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **12/13/2019**			RunNo: **56004**		
Client ID: **BATCH**	Batch ID: **R56004**					Analysis Date: **12/13/2019**			SeqNo: **1115173**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.97	0.500	5.000	0.9470	101	66	142	5.923	0.841	30	B

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **1912112-010BDUP** SampType: **DUP** Units: **mg/L** Prep Date: **12/14/2019** RunNo: **56004**
Client ID: **IW61-20191207** Batch ID: **R56004** Analysis Date: **12/14/2019** SeqNo: **1115187**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	103	0.500						102.7	0.0643	20	EB

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **1912112-010BMS** SampType: **MS** Units: **mg/L** Prep Date: **12/14/2019** RunNo: **56004**
Client ID: **IW61-20191207** Batch ID: **R56004** Analysis Date: **12/14/2019** SeqNo: **1115188**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	108	0.500	5.000	102.7	106	66	142				EB

NOTES:
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **MB-R56080** SampType: **MBLK** Units: **mg/L** Prep Date: **12/17/2019** RunNo: **56080**
Client ID: **MBLKW** Batch ID: **R56080** Analysis Date: **12/17/2019** SeqNo: **1117211**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.500									

Sample ID: **LCS-R56080** SampType: **LCS** Units: **mg/L** Prep Date: **12/17/2019** RunNo: **56080**
Client ID: **LCSW** Batch ID: **R56080** Analysis Date: **12/17/2019** SeqNo: **1117212**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.45	0.500	5.000	0	109	88.3	117				

Sample ID: **1912112-003BDUP** SampType: **DUP** Units: **mg/L** Prep Date: **12/18/2019** RunNo: **56080**
Client ID: **MW21-20191207** Batch ID: **R56080** Analysis Date: **12/18/2019** SeqNo: **1117214**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	108	2.00						110.4	1.86	20	D

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **1912112-003BMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **12/18/2019**		RunNo: **56080**			
Client ID: **MW21-20191207**	Batch ID: **R56080**					Analysis Date: **12/18/2019**		SeqNo: **1117215**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	128	2.00	20.00	110.4	85.8	66	142				D

Sample ID: **1912112-003BMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **12/18/2019**		RunNo: **56080**			
Client ID: **MW21-20191207**	Batch ID: **R56080**					Analysis Date: **12/18/2019**		SeqNo: **1117216**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	129	2.00	20.00	110.4	93.4	66	142	127.6	1.18	30	D

Work Order: 1912112
CLIENT: Friedman & Bruya
Project: 912135

QC SUMMARY REPORT

Dissolved Gases by RSK-175

Sample ID: **MB-R55983**	SampType: **MBLK**	Units: **mg/L**	Prep Date: **12/3/2020**	RunNo: **55983**
Client ID: **MBLKW**	Batch ID: **R55983**		Analysis Date: **12/3/2020**	SeqNo: **1114567**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863									
Ethene	ND	0.0151									
Ethane	ND	0.0162									

Sample ID: **LCS-R55983**	SampType: **LCS**	Units: **mg/L**	Prep Date: **12/3/2020**	RunNo: **55983**
Client ID: **LCSW**	Batch ID: **R55983**		Analysis Date: **12/3/2020**	SeqNo: **1114566**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,040	0.00863	1,000	0	104	70	130				
Ethene	1,050	0.0151	1,000	0	105	70	130				
Ethane	1,060	0.0162	1,000	0	106	70	130				

Sample ID: **1912078-001EREP**	SampType: **REP**	Units: **mg/L**	Prep Date: **12/3/2020**	RunNo: **55983**
Client ID: **BATCH**	Batch ID: **R55983**		Analysis Date: **12/3/2020**	SeqNo: **1114530**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00863						0		30	
Ethene	ND	0.0151						0		30	
Ethane	ND	0.0162						0		30	

Sample Log-In Check List

Client Name:	**FB**	Work Order Number:	**1912112**
Logged by:	**Carissa True**	Date Received:	**12/9/2019 1:50:00 PM**

Chain of Custody

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

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 >0°C to 10.0°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:	Michael Erdahl	Date:	12/10/2019
By Whom:	Carissa True	Via:	☐ eMail ☑ Phone ☐ Fax ☐ In Person
Regarding:	No amber volume for "IW04-" (sample 8), Out of hold		
Client Instructions:	Take from 250ml poly for ferrous iron, Proceed		

19. Additional remarks:

Item Information

Item #	Temp °C
Cooler 1	5.5
Sample 1	6.3

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

1912112

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SUBCONTRACTER Fremont

PROJECT NAME/NO. 912135

PO # A-501

REMARKS

Please Email Results

TURNAROUND TIME

☒ Standard ~~(2 Weeks)~~ 1 week

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Dispose after 30 days

☐ Return samples

☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dioxins/Furans	EPH	VPH	Methan, Ethane, Ethene	Alkalinity Sulfate Nitrate	Ferrous Iron	TOC				Notes
MW18-20191207		12/7/19	1437	H_2O					X	X	X	X				
MW19-20191207		12/7/19	1610	H_2O					X	X	X					
MW21-20191207		12/7/19	1142	H_2O					X			X				
MW22-20191207		12/7/19	0925	H_2O					X	X	X	X				
MW23-20191207		12/7/19	1045						X	X	X	X				
MW24-20191207		12/7/19	1312						X	X	X	X				
MW25-20191207		12/7/19	1655						X	X	X	X				
IW04-20191207		12/7/19	1440							X	X	X				
IW50-20191207		12/7/19	1205						X	X	X	X				
IW61-20191207		12/7/19	1640						X	X	X	X				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	12/9/19	12:11
Received by:			FAF	12/9/19	1350
Relinquished by:					
Received by:					

912135

SAMPLE CHAIN OF CUSTODY

ME 12/9/19

Page # 1 of 2 VWS/CO4/AIS

Send Report To: Tom Cammarata cc: Logan Schumacher

Company: SoundEarth Strategies

Address: 2811 Fairview Ave E, Suite 2000

City, State, ZIP: Seattle, WA 98102

SAMPLERS (signature): Sarah Welter

PROJECT NAME/NO.: Troy Laundry Property

PO #: 0731-004-~~05~~ 08 fixed per LS

REMARKS

EIM Y 12/12/19 MC

TURNAROUND TIME
- (Standard (2 Weeks)) — circled
- RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ⊗ Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe 2+ by SM 3500	TOC By EPA 415.1	Notes
MW17-20191207	MW17	–	01 A-G	12/7/19	1350	W	7	X	X	X	X						
MW18-20191207	MW18	–	02 A-N	12/7/19	1437	W	14	X	X	X	X	X	X	X	X	X	
MW19-20191207	MW19	–	03 A-M	12/7/19	1618	W	13	V	X	X	X	X	X	✓	X		
MW20-20191207	MW20	–	04 A-G	12/7/19	1310	W	7	X	X	X	X						
MW21-20191207	MW21	–	05 A-K	12/7/19	1142	W	11	X	X	X	X	X				X	
MW22-20191207	MW22	–	06 A-N	12/7/19	0925	W	14	X	X	X	X	X	X	X	X	X	
MW23-20191207	MW23	–	07	12/7/19	1045	W	14	X	X	X	X	X	X	X	X	X	
MW24-20191207	MW24	–	08	12/7/19	1312	W	14	X	X	X	X	X	X	X	X	V	
MW25-20191207	MW25	–	09	12/7/19	1659	W	14	X	X	X	X	X	X	X	X	X	
IW04-20191207	IW04	–	10 A-G	12/7/19	1440	W	7				X		X	X	V	X	
IW06-20191207	IW06	–	11 A-C	12/7/19	1610	W	3				X						
IW50-20191207	IW50	–	12 A-J	12/7/19	1205	W	10				X	X	X	Y	X	X	
IW61-20191207	IW61	–	13	12/7/19	1040	W	10				X	Y	X	X	X	X	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	12/9/19	855
Received by:	[signature]	NIXON YANGUAS	FBI	12.9.19	855
Relinquished by:			Samples received at 4 °C		
Received by:	[signature]	Nhan Phan	FBI	12/9/19	1045

SAMPLE CHAIN OF CUSTODY

912135

ME 12/9/19

Send Report To Tom Cammarata cc: Logan Schumacher

Company SoundEarth Strategies

Address 2811 Fairview Ave E, Suite 2000

City, State, ZIP Seattle, WA 98102

SAMPLERS (sig.) Sarah Welter

PROJECT NAME/NO.: Troy Laundry Property

PO #: 0731-004-09

REMARKS: EIM Y

Page # 2 of 2

TURNAROUND TIME: VWS

Standard (2 Weeks) COY

RUSH

Rush charges authorized by: AT 5

SAMPLE DISPOSAL
⊗ Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	GRPH by NWTPH-Gx	BTEX by EPA 8021B	DRPH/ORPH by NWTPH-Dx	cVOCs by EPA 8260C	Methane, Ethane, Ethene by RSK175	Sulfate, Nitrate, Alkalinity by SM1845/SM2320B	Total Fe and Mn by EPA 200.8	Fe^{2+} by SM 3500	TOC By EPA 415.1	Notes
IW91-20191207	IW91	–	14 #G	12/7/19	0940	W	7	X	X	X	X						
MW99-20191207	MW99	–	15 #G	12/7/19	1200	W	7	X	X	X	X						

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Sarah Welter	Sarah Welter	SES	12/9/19	1245
Received by:		WILLIAM LUAS	FEDEX	12.9.19	856
Relinquished by:					
Received by:	Nham Phan	Nham Phan	FEBI	12/9/19	1045

SiREM
Leading Science · Lasting Solutions

130 Stone Rd. W
Guelph, ON N1G 3Z2
(519) 822-2265

Analytical Results

Client: SoundEarth Strategies
Client Project Number: 0731-004
Date Samples Received: December 10, 2020
Date Samples Analyzed: January 2, 2020

SiREM File Reference: S-5638

Client Sample ID	SiREM Reference ID	Client Sample Date	Sample Dilution Factor	Lactate	Acetate	Propionate	Formate	Butyrate	Pyruvate
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW18-20191207	19-2752	07-Dec-19	50	<0.39	10	<0.31	<0.22	<0.41	<0.69
MW21-20191207	19-2753	07-Dec-19	50	<0.39	116	139	<0.22	13	12
MW22-20191207	19-2754	07-Dec-19	50	<0.39	418	134	<0.22	42	13
MW23-20191207	19-2755	07-Dec-19	50	<0.39	24	<0.31	2.7	<0.41	<0.69
MW24-20191207	19-2756	07-Dec-19	50	5.7	29	<0.31	3.0	<0.41	<0.69
MW25-20191207	19-2757	07-Dec-19	50	<0.39	21	<0.31	2.9	<0.41	<0.69
IW04-20191207	19-2758	07-Dec-19	50	<0.39	25	<0.31	3.3	<0.41	<0.69
IW50-20191207	19-2759	07-Dec-19	50	<0.39	18	<0.31	3.3	<0.41	<0.69
IW61-20191207	19-2760	07-Dec-19	50	<0.39	98	7.2	1.8	5.0	<0.69
		QL	50	0.39	0.54	0.31	0.22	0.41	0.69

Comments:
Method: Ion Chromatography
QL = Quantitation limit
J = associated value is estimated; compound positively detected at concentration below the QL
< = compound analysed for but not detected, associated value is QL. Sample QL is corrected for dilution.

Analyst:

Steve Sande
Laboratory Technician

Results approved:

Michael Healey
Treatability and SP3™ Services Coordinator

Date: 3-Jan-20

Chain-of-Custody Form

SiREM

siremlab.com

180A Market Place Blvd.
Knoxville, TN 37922
(865) 330-0037

Lab # S-5638

Project Name	Troy Laundry Property
Project #	0731-001
Project Manager	Tom Sammarata, Logan Schumacher
Email	tsammarata@soundearthinc.com, lschumacher@
Company	Sound Earth Strategies
Address	2811 Fairview Ave E Suite 2000
	Seattle, WA 98102
Phone #	206-306-1900
Sampler's Signature	
Sampler's Printed Name	Sarah Welter

Analysis

Preservative

Volatile Fatty Acids

Preservative Key
0. None
1. HCL
2. Other
3. Other
4. Other
5. Other
6. Other

Client Sample ID	Lab ID	Sampling Date	Sampling Time	Matrix	# of Containers	Preservative 0	Other Information
MW18-20191207		12/7/19	1437	W	2	X	
MW21-20191207		12/7/19	1142	W	2	X	
MW22-20191207		12/7/19	0925	W	2	X	
MW23-20191207		12/7/19	1045	W	2	X	
MW24-20191207		12/7/19	1312	W	2	X	
MW25-20191207		12/7/19	1655	W	2	X	
IW04-20191207		12/7/19	1440	W	2	X	
IW50-20191207		12/7/19	1205	W	2	X	
IW41-20191207		12/7/19	1040	W	2	X	

Sample Receipt

Cooler Condition: Good - wet ice

Cooler Temperature: 6.6 °C

Custody Seals: Yes ☐ No ☑

Invoice Information

P.O. # 0731-001

Bill To:

For Lab Use Only

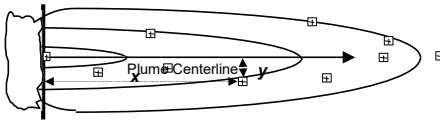
Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: Sarah Welter	Signature: Susan Thomas	Signature	Signature	Signature	Signature
Printed Name: Sarah Welter	Printed Name: Susan Thomas	Printed Name	Printed Name	Printed Name	Printed Name
Firm: SES	Firm: SiREM	Firm	Firm	Firm	Firm
Date/Time: 12/9/19 0930	Date/Time: 12-10-19 0940	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

ATTACHMENT B
PLUME STABILITY ANALYSIS RESULTS

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW04															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/8/15	0		1.9															
#2	3/9/16	306		11															
#3	7/14/16	433		0.5															
#4	10/21/16	532		1.8															
#5	1/26/17	629		4.8															
#6	6/1/17	755		12															
#7	9/23/17	869		14															
#8	12/16/17	953		19															
#9	3/10/18	1037		9															
#10	6/30/18	1149		5.3															
#11	9/22/18	1233		0.5															
#12	12/15/18	1317		1.9															
#13	6/15/19	1499		1.7															
#14	12/7/19	1674		1.4															
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	6.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

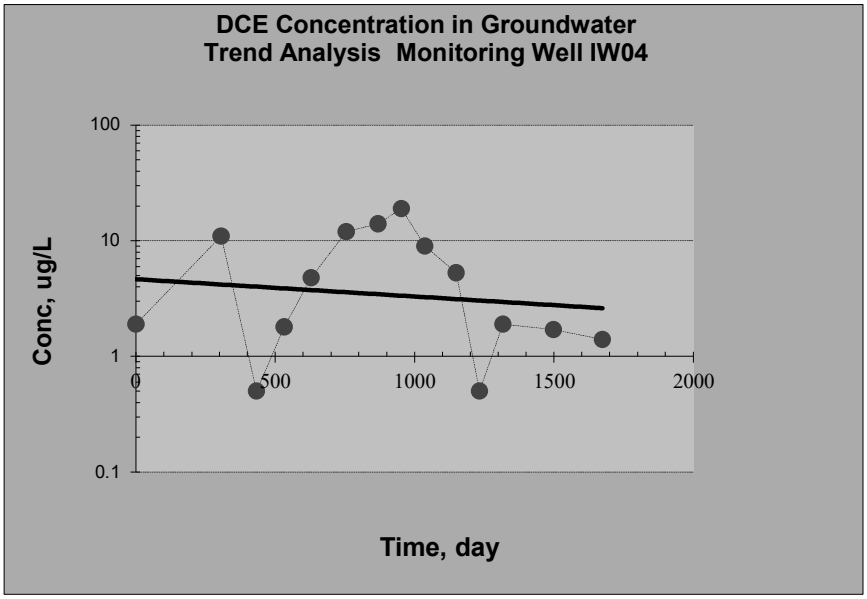
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		306																	
#3		433																	
#4		532																	
#5		629																	
#6		755																	
#7		869																	
#8		953																	
#9	3/10/18	1037																	
#10	6/30/18	1149																	
#11	9/22/18	1233																	
#12	12/15/18	1317																	
#13	6/15/19	1499																	
#14	12/7/19	1674																	
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW04**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*35.638%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.126* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*5.514* @50% C.L.;	*NA* @85% C.L.	

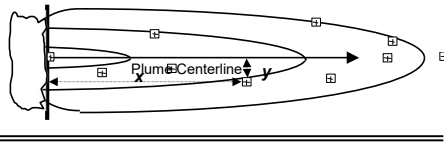


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW04															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/8/15	0		15															
#2	3/9/16	306		2.5															
#3	7/14/16	433		0.5															
#4	10/21/16	532		0.5															
#5	1/26/17	629		1.1															
#6	6/1/17	755		1.2															
#7	9/23/17	869		0.5															
#8	12/16/17	953		0.5															
#9	3/10/18	1037		0.5															
#10	6/30/18	1149		0.5															
#11	9/22/18	1233		0.5															
#12	12/15/18	1317		0.5															
#13	6/15/19	1499		0.5															
#14	12/7/19	1674		0.5															
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

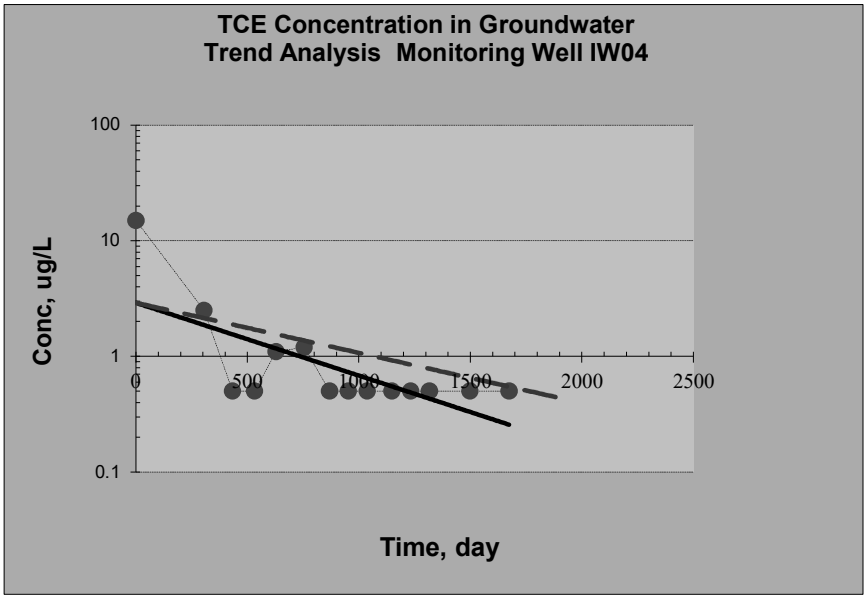
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		306																	
#3		433																	
#4		532																	
#5		629																	
#6		755																	
#7		869																	
#8		953																	
#9	3/10/18	1037																	
#10	6/30/18	1149																	
#11	9/22/18	1233																	
#12	12/15/18	1317																	
#13	6/15/19	1499																	
#14	12/7/19	1674																	
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW04**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.526%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.529* @50% C.L.;	*0.364* @85% C.L.	
Half Life for k_{point}, yr	*1.310* @50% C.L.;	*1.904* @85% C.L.	

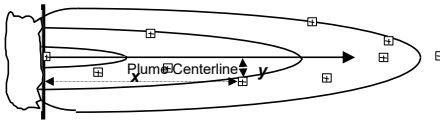


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW04														
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	5/8/15	0		0.1														
#2	3/9/16	306		0.1														
#3	7/14/16	433		0.1														
#4	10/21/16	532		0.1														
#5	1/26/17	629		0.1														
#6	6/1/17	755		0.21														
#7	9/23/17	869		0.22														
#8	12/16/17	953		0.54														
#9	3/10/18	1037		0.65														
#10	6/30/18	1149		0.68														
#11	9/22/18	1233		0.1														
#12	12/15/18	1317		1.6														
#13	6/15/19	1499		1														
#14	12/7/19	1674		1.1														
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

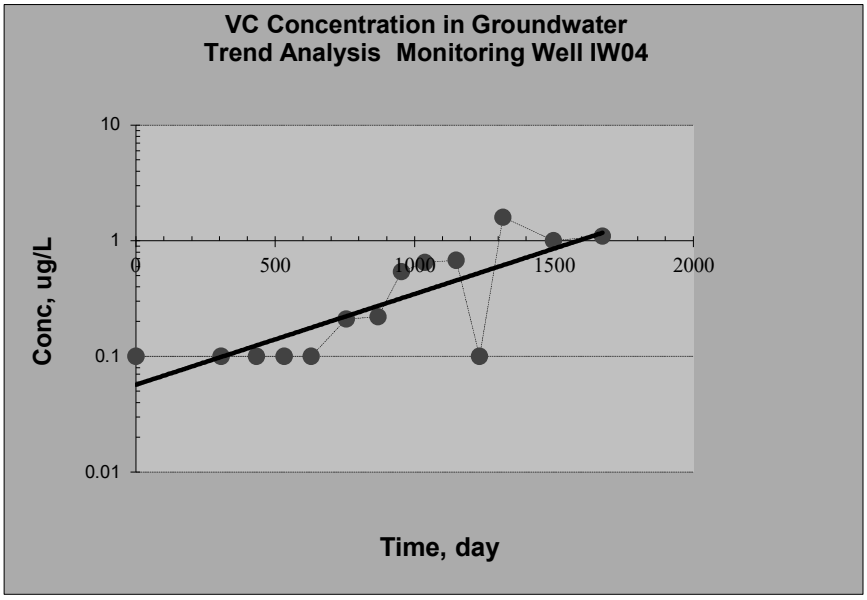
Well Location:																		
Sampling Event	Date sampled	Day																
#1		0																
#2		306																
#3		433																
#4		532																
#5		629																
#6		755																
#7		869																
#8		953																
#9	3/10/18	1037																
#10	6/30/18	1149																
#11	9/22/18	1233																
#12	12/15/18	1317																
#13	6/15/19	1499																
#14	12/7/19	1674																
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW04**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.942%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

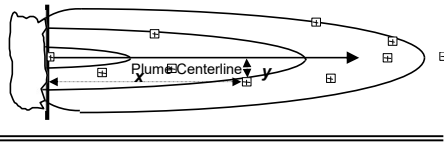


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW50															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	8/3/15	0		44															
#2	12/8/15	127		140															
#3	3/9/16	219		110															
#4	7/15/16	347		38															
#5	10/21/16	445		23															
#6	1/26/17	542		34															
#7	6/2/17	669		81															
#8	9/24/17	783		26															
#9	12/16/17	866		15															
#10	3/10/18	950		8															
#11	6/30/18	1062		4.5															
#12	9/22/18	1146		5.1															
#13	12/15/18	1230		15															
#14	6/15/19	1412		54															
#15	12/7/19	1587		55															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	43.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

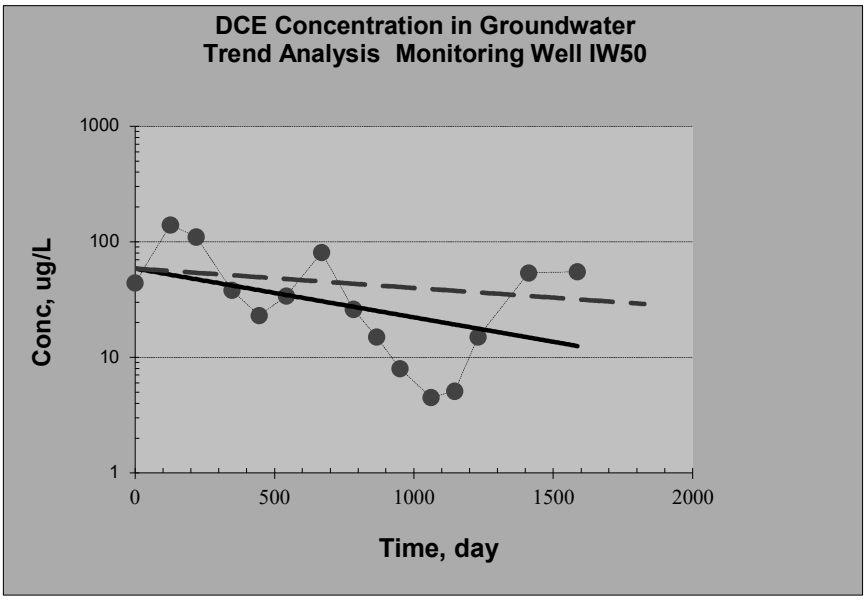
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		127																	
#3		219																	
#4		347																	
#5		445																	
#6		542																	
#7		669																	
#8		783																	
#9	12/16/17	866																	
#10	3/10/18	950																	
#11	6/30/18	1062																	
#12	9/22/18	1146																	
#13	12/15/18	1230																	
#14	6/15/19	1412																	
#15	12/7/19	1587																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW50**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*90.255%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.355* @50% C.L.;	*0.141*	@85% C.L.
Half Life for k_{point}, yr	*1.952* @50% C.L.;	*4.912*	@85% C.L.

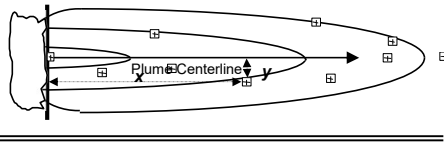


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW50															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	8/3/15	0		4.1															
#2	12/8/15	127		0.5															
#3	3/9/16	219		0.5															
#4	7/15/16	347		3.7															
#5	10/21/16	445		3.7															
#6	1/26/17	542		13															
#7	6/2/17	669		0.5															
#8	9/24/17	783		0.5															
#9	12/16/17	866		0.5															
#10	3/10/18	950		0.5															
#11	6/30/18	1062		0.5															
#12	9/22/18	1146		0.5															
#13	12/15/18	1230		1.6															
#14	6/15/19	1412		5.2															
#15	12/7/19	1587		4.5															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	2.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

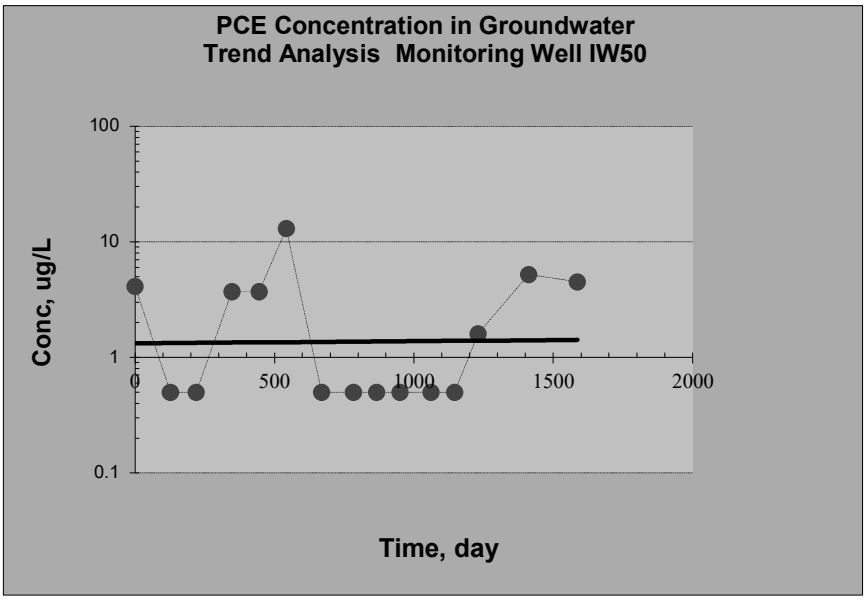
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		127																	
#3		219																	
#4		347																	
#5		445																	
#6		542																	
#7		669																	
#8		783																	
#9	12/16/17	866																	
#10	3/10/18	950																	
#11	6/30/18	1062																	
#12	9/22/18	1146																	
#13	12/15/18	1230																	
#14	6/15/19	1412																	
#15	12/7/19	1587																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW50**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*4.949%*		
Plume Stability?	UD	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

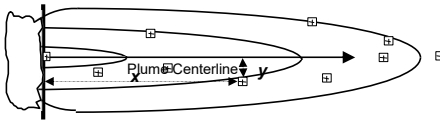


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW50														
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	8/3/15	0		8.1														
#2	12/8/15	127		0.5														
#3	3/9/16	219		0.5														
#4	7/15/16	347		0.5														
#5	10/21/16	445		0.5														
#6	1/26/17	542		2.1														
#7	6/2/17	669		0.5														
#8	9/24/17	783		0.5														
#9	12/16/17	866		0.5														
#10	3/10/18	950		0.5														
#11	6/30/18	1062		0.5														
#12	9/22/18	1146		0.5														
#13	12/15/18	1230		0.5														
#14	6/15/19	1412		2														
#15	12/7/19	1587		1.6														
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	8.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

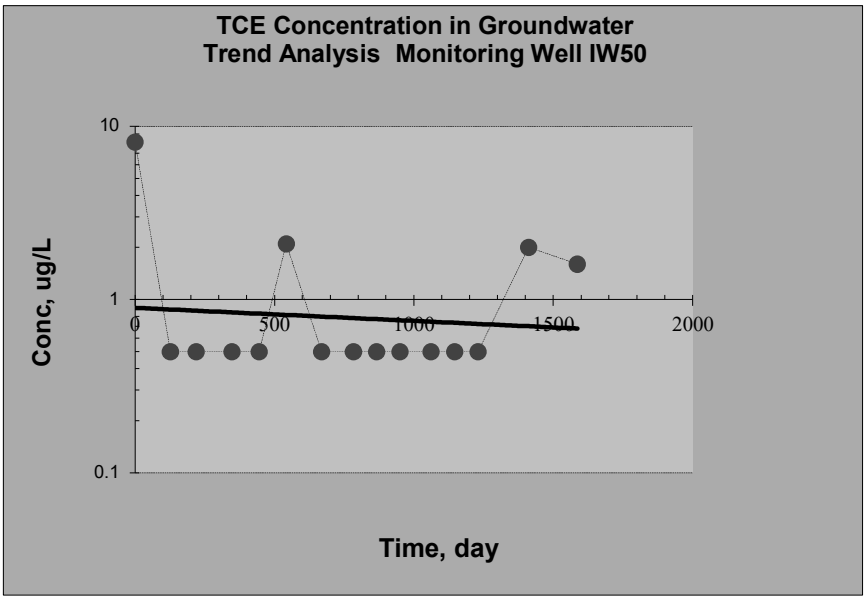
Well Location:																		
Sampling Event	Date sampled	Day																
#1		0																
#2		127																
#3		219																
#4		347																
#5		445																
#6		542																
#7		669																
#8		783																
#9	12/16/17	866																
#10	3/10/18	950																
#11	6/30/18	1062																
#12	9/22/18	1146																
#13	12/15/18	1230																
#14	6/15/19	1412																
#15	12/7/19	1587																
#16																		
#17																		
#18																		
#19																		
#20																		

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW50**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*27.189%*		
Plume Stability?	UD	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

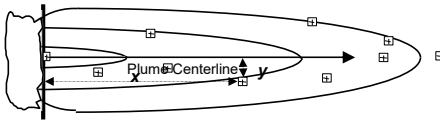


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW50														
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	8/3/15	0		0.1														
#2	12/8/15	127		1.8														
#3	3/9/16	219		1.9														
#4	7/15/16	347		2.5														
#5	10/21/16	445		1														
#6	1/26/17	542		0.74														
#7	6/2/17	669		0.95														
#8	9/24/17	783		2.6														
#9	12/16/17	866		2.2														
#10	3/10/18	950		3.6														
#11	6/30/18	1062		2.5														
#12	9/22/18	1146		2.9														
#13	12/15/18	1230		4.5														
#14	6/15/19	1412		7.1														
#15	12/7/19	1587		7.4														
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

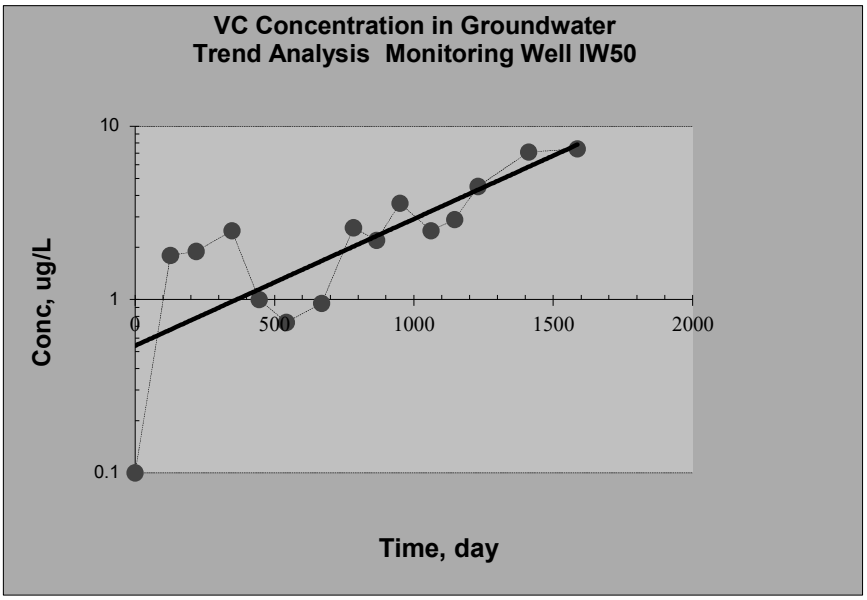
Well Location:																		
Sampling Event	Date sampled	Day																
#1		0																
#2		127																
#3		219																
#4		347																
#5		445																
#6		542																
#7		669																
#8		783																
#9	12/16/17	866																
#10	3/10/18	950																
#11	6/30/18	1062																
#12	9/22/18	1146																
#13	12/15/18	1230																
#14	6/15/19	1412																
#15	12/7/19	1587																
#16																		
#17																		
#18																		
#19																		
#20																		

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW50**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.906%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

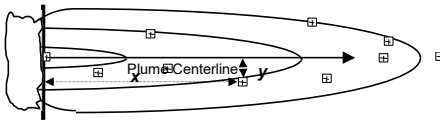


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW61															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	12/8/15	0		120															
#2	3/9/16	92		140															
#3	7/14/16	219		24															
#4	10/21/16	318		34															
#5	1/26/17	415		32															
#6	6/2/17	542		41															
#7	9/23/17	655		45															
#8	12/16/17	739		65															
#9	3/10/18	823		71															
#10	3/23/18	836		82															
#11	6/30/18	935		67															
#12	9/22/18	1019		63															
#13	12/15/18	1103		58															
#14	6/15/19	1285		71															
#15	12/7/19	1460		65															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	65.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

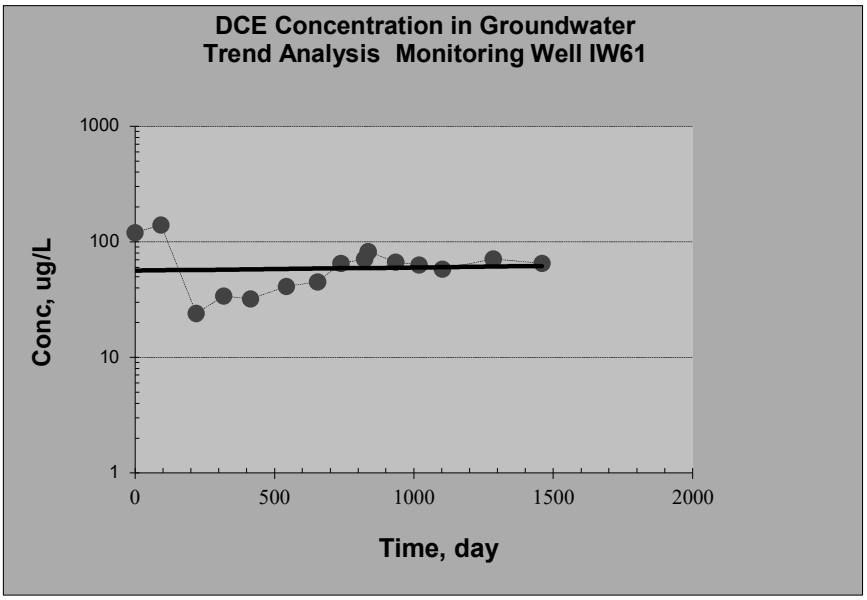
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		92																	
#3		219																	
#4		318																	
#5		415																	
#6		542																	
#7		655																	
#8		739																	
#9	3/10/18	823																	
#10	3/23/18	836																	
#11	6/30/18	935																	
#12	9/22/18	1019																	
#13	12/15/18	1103																	
#14	6/15/19	1285																	
#15	12/7/19	1460																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW61**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*15.785%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.023* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*30.732* @50% C.L.;	*NA* @85% C.L.	

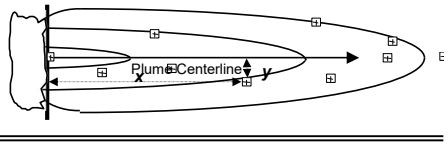


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1: Sampling date #1	
Plot #2: Sampling date #2	
Plot #3: Sampling date #3	
Plot #4: Sampling date #4	
Plot #5: Sampling date #5	
Plot #6: Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW61															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	12/8/15	0		10															
#2	3/9/16	92		23															
#3	7/14/16	219		8.3															
#4	10/21/16	318		9.5															
#5	1/26/17	415		8.3															
#6	6/2/17	542		9.9															
#7	9/23/17	655		12															
#8	12/16/17	739		15															
#9	3/10/18	823		15															
#10	3/23/18	836		15															
#11	6/30/18	935		16															
#12	9/22/18	1019		13															
#13	12/15/18	1103		15															
#14	6/15/19	1285		13															
#15	12/7/19	1460		6.8															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	12.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

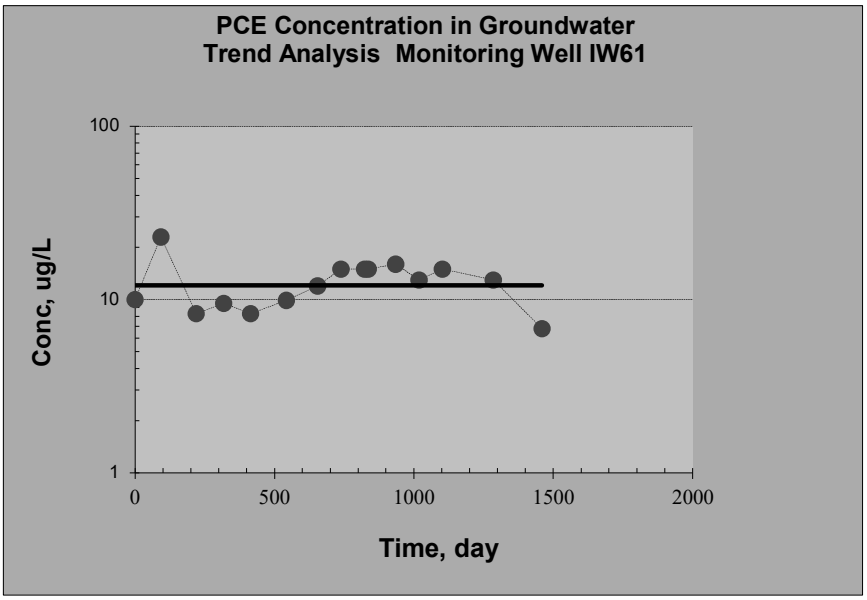
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		92																	
#3		219																	
#4		318																	
#5		415																	
#6		542																	
#7		655																	
#8		739																	
#9	3/10/18	823																	
#10	3/23/18	836																	
#11	6/30/18	935																	
#12	9/22/18	1019																	
#13	12/15/18	1103																	
#14	6/15/19	1285																	
#15	12/7/19	1460																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW61**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*0.129%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.000* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	###### @50% C.L.;	*NA* @85% C.L.	

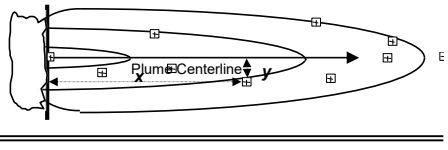


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW61															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	12/8/15	0		2.8															
#2	3/9/16	92		4.2															
#3	7/14/16	219		1.6															
#4	10/21/16	318		2.8															
#5	1/26/17	415		2.9															
#6	6/2/17	542		3.4															
#7	9/23/17	655		3.2															
#8	12/16/17	739		3.2															
#9	3/10/18	823		2.7															
#10	3/23/18	836		2.9															
#11	6/30/18	935		2.5															
#12	9/22/18	1019		2.1															
#13	12/15/18	1103		2.1															
#14	6/15/19	1285		2.4															
#15	12/7/19	1460		1.7															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	2.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

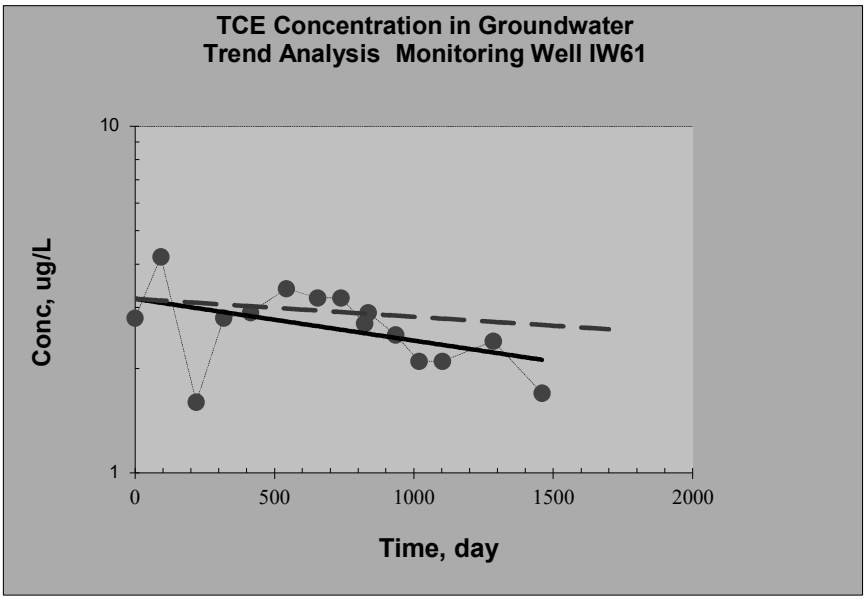
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		92																	
#3		219																	
#4		318																	
#5		415																	
#6		542																	
#7		655																	
#8		739																	
#9	3/10/18	823																	
#10	3/23/18	836																	
#11	6/30/18	935																	
#12	9/22/18	1019																	
#13	12/15/18	1103																	
#14	6/15/19	1285																	
#15	12/7/19	1460																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW61**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*91.783%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.101* @50% C.L.;	*0.043* @85% C.L.	
Half Life for k_{point}, yr	*6.849* @50% C.L.;	*15.980* @85% C.L.	

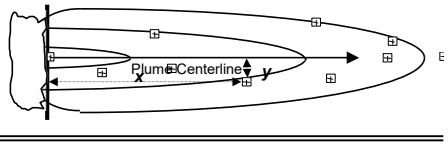


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		IW61															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	12/8/15	0		0.86															
#2	3/9/16	92		1.7															
#3	7/14/16	219		1.6															
#4	10/21/16	318		0.96															
#5	1/26/17	415		0.96															
#6	6/2/17	542		1.3															
#7	9/23/17	655		1.2															
#8	12/16/17	739		1.2															
#9	3/10/18	823		1.1															
#10	3/23/18	836		1.3															
#11	6/30/18	935		1.7															
#12	9/22/18	1019		1.8															
#13	12/15/18	1103		2															
#14	6/15/19	1285		2.9															
#15	12/7/19	1460		4															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

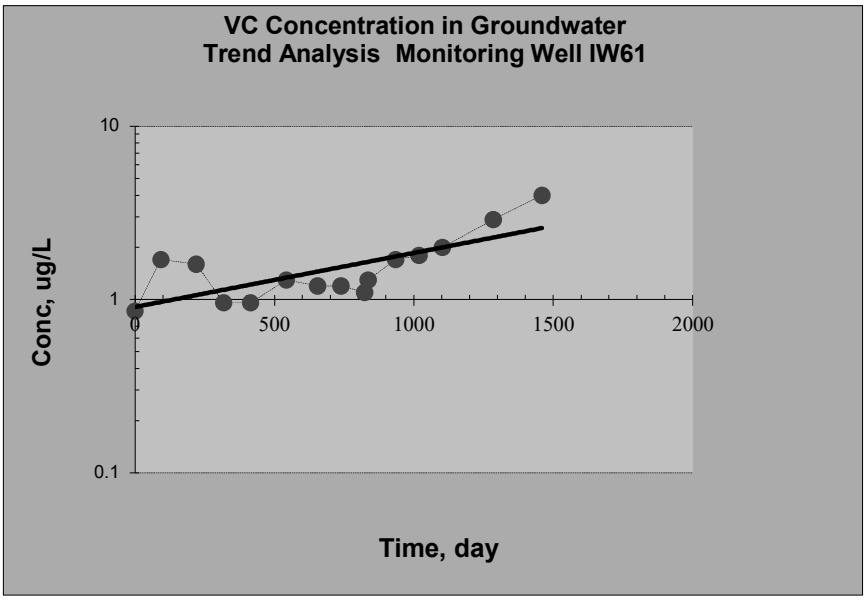
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		92																	
#3		219																	
#4		318																	
#5		415																	
#6		542																	
#7		655																	
#8		739																	
#9	3/10/18	823																	
#10	3/23/18	836																	
#11	6/30/18	935																	
#12	9/22/18	1019																	
#13	12/15/18	1103																	
#14	6/15/19	1285																	
#15	12/7/19	1460																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**IW61**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.824%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

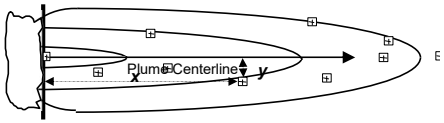


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW13															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	8/5/15	0		5.4															
#2	12/15/15	132		5.6															
#3	3/7/16	215		6.6															
#4	7/12/16	342		6.5															
#5	10/19/16	441		10															
#6	1/24/17	538		6.4															
#7	5/31/17	665		10															
#8	9/21/17	778		8.4															
#9	12/14/17	862		5.2															
#10	3/8/18	946		8															
#11	6/29/18	1059		4.4															
#12	9/20/18	1142		6.5															
#13	12/14/18	1227		7.8															
#14	6/14/19	1409		7															
#15	12/5/19	1583		7.7															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	7.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

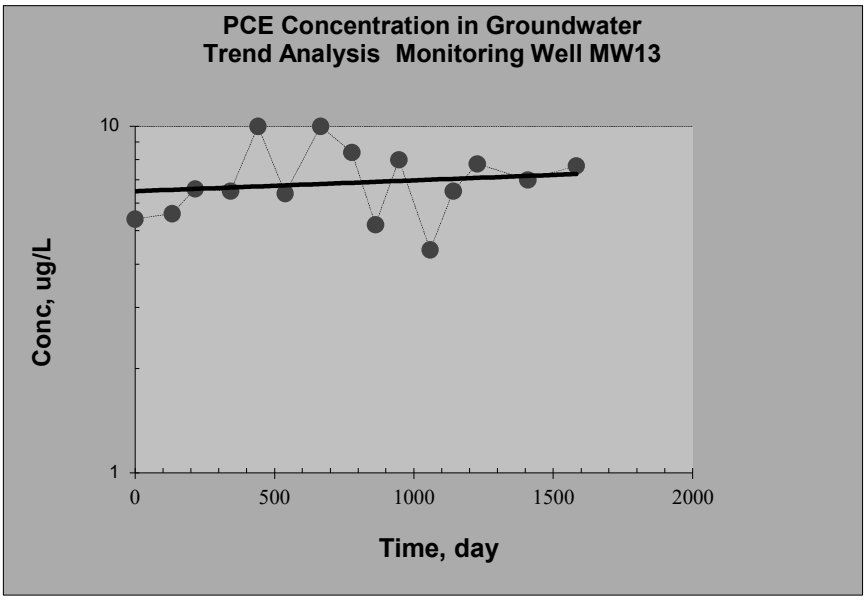
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		132																	
#3		215																	
#4		342																	
#5		441																	
#6		538																	
#7		665																	
#8		778																	
#9	12/14/17	862																	
#10	3/8/18	946																	
#11	6/29/18	1059																	
#12	9/20/18	1142																	
#13	12/14/18	1227																	
#14	6/14/19	1409																	
#15	12/5/19	1583																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW13**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*40.083%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.026* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*26.311* @50% C.L.;	*NA* @85% C.L.	

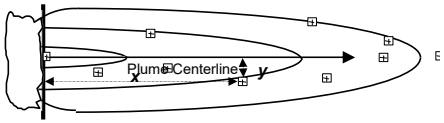


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW13															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	8/5/15	0		2.3															
#2	12/15/15	132		1.6															
#3	3/7/16	215		1.6															
#4	7/12/16	342		1.6															
#5	10/19/16	441		2.2															
#6	1/24/17	538		1															
#7	5/31/17	665		1.5															
#8	9/21/17	778		1.8															
#9	12/14/17	862		1.4															
#10	3/8/18	946		1.4															
#11	6/29/18	1059		0.5															
#12	9/20/18	1142		1.3															
#13	12/14/18	1227		1.4															
#14	6/14/19	1409		1.1															
#15	12/5/19	1583		1.1															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

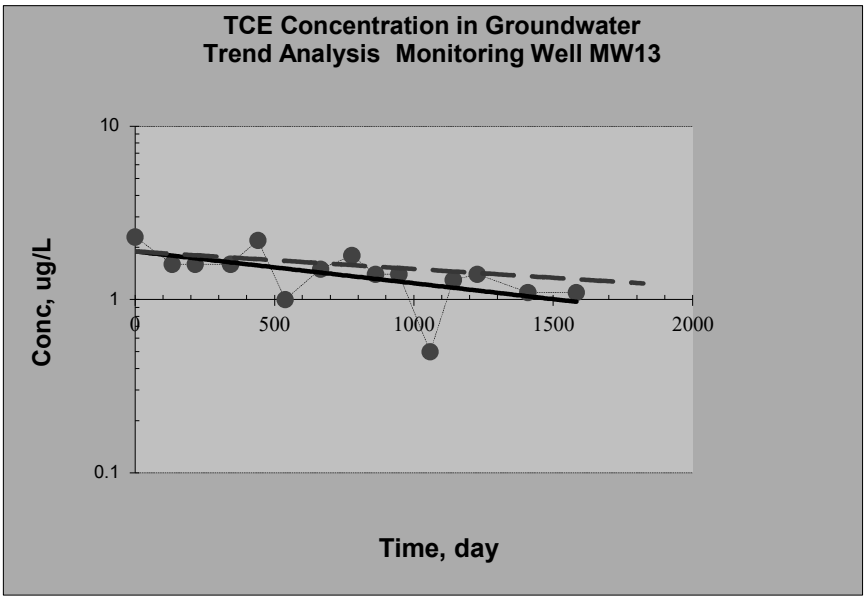
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		132																	
#3		215																	
#4		342																	
#5		441																	
#6		538																	
#7		665																	
#8		778																	
#9	12/14/17	862																	
#10	3/8/18	946																	
#11	6/29/18	1059																	
#12	9/20/18	1142																	
#13	12/14/18	1227																	
#14	6/14/19	1409																	
#15	12/5/19	1583																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW13**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*96.797%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.154* @50% C.L.;	*0.085* @85% C.L.	
Half Life for k_{point}, yr	*4.491* @50% C.L.;	*8.140* @85% C.L.	

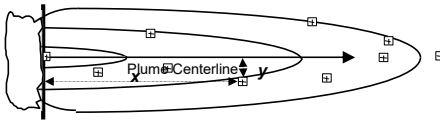


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1: Sampling date #1	
Plot #2: Sampling date #2	
Plot #3: Sampling date #3	
Plot #4: Sampling date #4	
Plot #5: Sampling date #5	
Plot #6: Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*307 Fairview Ave North*
Additional Description:	*Seattle*
Hazardous Substance	*DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit			MW16													
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	05/08/15	0			**640**													
#2	08/05/15	89			**550.0**													
#3	12/10/15	216			**510.0**													
#4	03/08/16	305			**190.0**													
#5	07/12/16	431			160.0													
#6	10/19/16	530			170.0													
#7	01/25/17	628			220.0													
#8	05/31/17	754			**100.0**													
#9	09/22/17	868			**78.0**													
#10	12/29/17	966			150.0													
#11	03/09/18	1036			**80.0**													
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	N/A	258.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	640	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

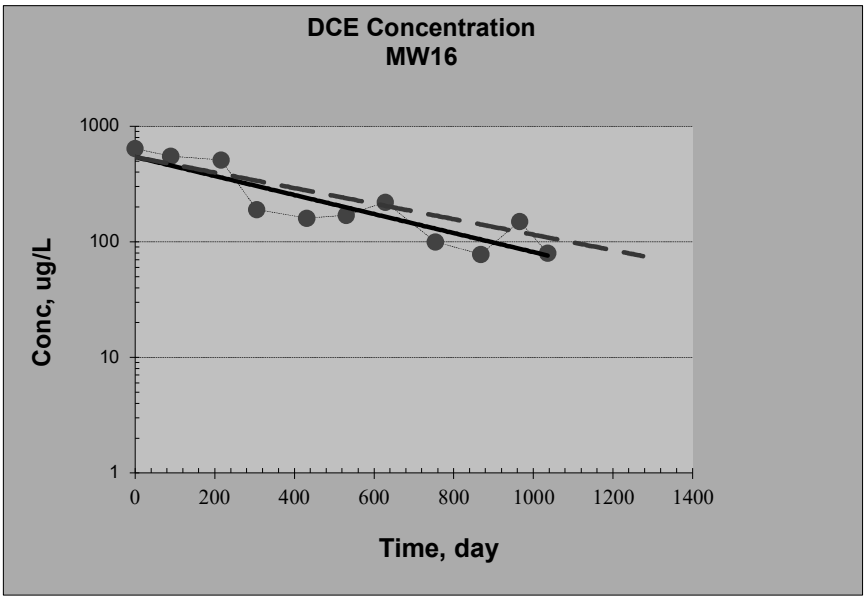
Well Location:			NA	NA	MW16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sampling Event	Date sampled	Day	Unit of elevation is feet.																
#1	12/6/08	0		95.29	92.17	94.91	94.97												
#2	9/27/09	89		93.39	93.3	93.17	93.41												
#3	4/11/11	216		96.99	96.85	96.55	96.75												
#4	9/13/12	305		94.11	94.04	93.7	93.82												
#5	4/5/13	431		95.48	95.32	94.97	95.05												
#6		530																	
#7		628																	
#8		754																	
#9	9/22/17	868																	
#10	12/29/17	966																	
#11	3/9/18	1036																	
#12																			
#13																			
#14																			
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *307 Fairview Ave North*
Additional Description: *Seattle*
Hazardous Substance *DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW16**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.980%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.691* @50% C.L.;	*0.565* @85% C.L.	
Half Life for k_{point}, yr	*1.003* @50% C.L.;	*1.226* @85% C.L.	

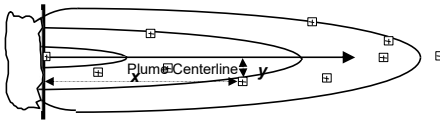


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	**1-Jan-98**
Plot #2:	Sampling date #2	**6-Jun-98**
Plot #3:	Sampling date #3	**8-Nov-98**
Plot #4:	Sampling date #4	**10-May-99**
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*307 Fairview Ave North*
Additional Description:	*Seattle*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit			MW16													
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	05/08/15	0			**7.5**													
#2	08/05/15	89			**7.8**													
#3	12/10/15	216			**5.3**													
#4	03/08/16	305			**3.7**													
#5	07/12/16	431			0.5													
#6	10/19/16	530			5.0													
#7	01/25/17	628			6.4													
#8	05/31/17	754			**5.7**													
#9	09/22/17	868			**5.4**													
#10	12/29/17	966			7.2													
#11	03/09/18	1036			**7.3**													
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	N/A	5.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	7.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:			NA	NA	MW16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sampling Event	Date sampled	Day	Unit of elevation is feet.															
#1	12/6/08	0		95.29	92.17	94.91	94.97											
#2	9/27/09	89		93.39	93.3	93.17	93.41											
#3	4/11/11	216		96.99	96.85	96.55	96.75											
#4	9/13/12	305		94.11	94.04	93.7	93.82											
#5	4/5/13	431		95.48	95.32	94.97	95.05											
#6		530																
#7		628																
#8		754																
#9	9/22/17	868																
#10	12/29/17	966																
#11	3/9/18	1036																
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		

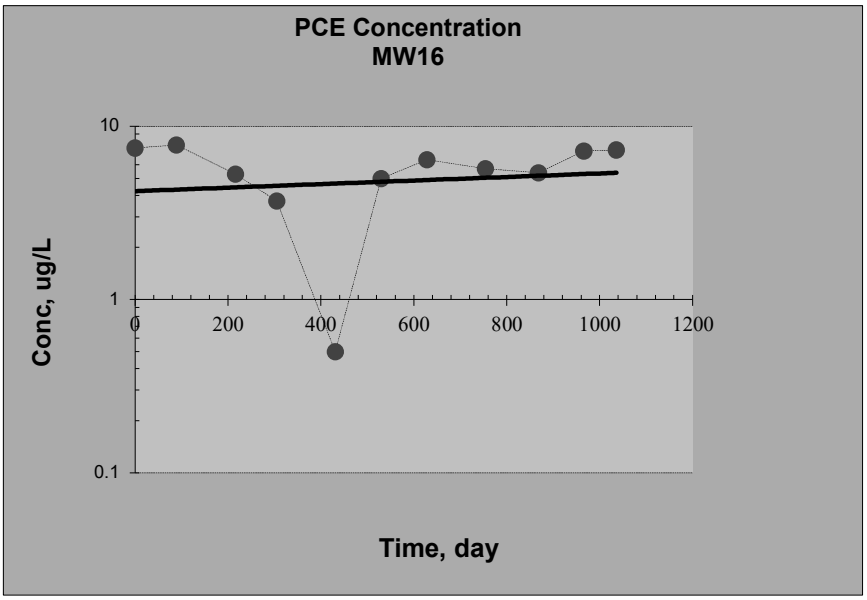
Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *307 Fairview Ave North*
Additional Description: *Seattle*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW16**	Confidence Level (Decision Criteria)?	85.0%

Confidence Level calculated with log-linear regression is?	*24.600%*	
Plume Stability?	Stable	; Decision Criteria is 85%.
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.086* @50% C.L.;	*NA* @85% C.L.
Half Life for k_{point}, yr	*8.046* @50% C.L.;	*NA* @85% C.L.

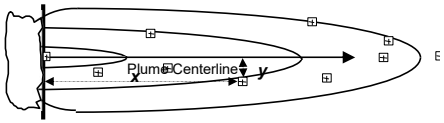


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	**1-Jan-98**
Plot #2:	Sampling date #2	**6-Jun-98**
Plot #3:	Sampling date #3	**8-Nov-98**
Plot #4:	Sampling date #4	**10-May-99**
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*307 Fairview Ave North*
Additional Description:	*Seattle*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit			MW16													
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	05/08/15	0			**7.6**													
#2	08/05/15	89			**7.3**													
#3	12/10/15	216			**4.5**													
#4	03/08/16	305			**2.0**													
#5	07/12/16	431			0.5													
#6	10/19/16	530			5.4													
#7	01/25/17	628			6.8													
#8	05/31/17	754			**4.4**													
#9	09/22/17	868			**5.2**													
#10	12/29/17	966			6.4													
#11	03/09/18	1036			**5.5**													
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	N/A	5.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

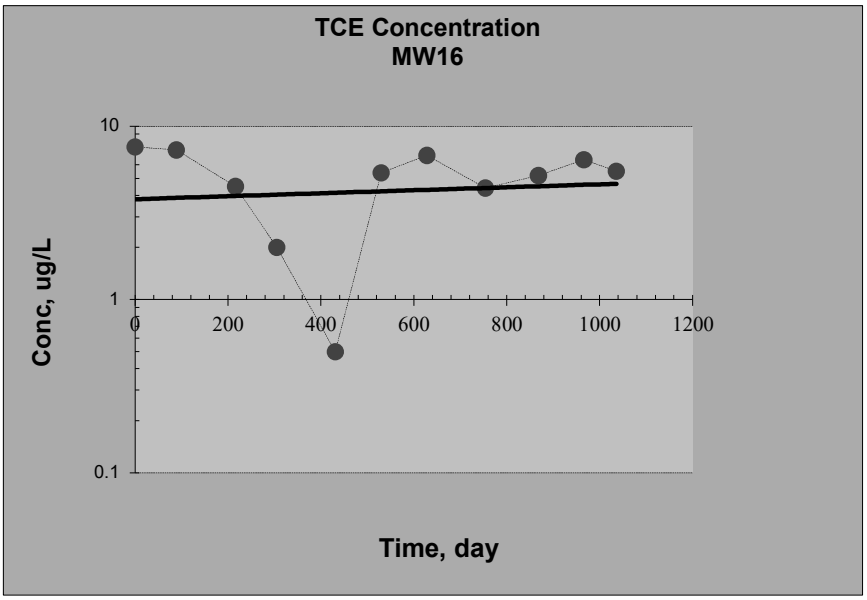
Well Location:			NA	NA	MW16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sampling Event	Date sampled	Day	Unit of elevation is feet.															
#1	12/6/08	0		95.29	92.17	94.91	94.97											
#2	9/27/09	89		93.39	93.3	93.17	93.41											
#3	4/11/11	216		96.99	96.85	96.55	96.75											
#4	9/13/12	305		94.11	94.04	93.7	93.82											
#5	4/5/13	431		95.48	95.32	94.97	95.05											
#6		530																
#7		628																
#8		754																
#9	9/22/17	868																
#10	12/29/17	966																
#11	3/9/18	1036																
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *307 Fairview Ave North*
Additional Description: *Seattle*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW16**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*20.282%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.072* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*9.614* @50% C.L.;	*NA* @85% C.L.	

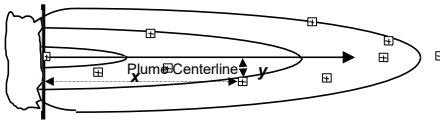


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	**1-Jan-98**
Plot #2:	Sampling date #2	**6-Jun-98**
Plot #3:	Sampling date #3	**8-Nov-98**
Plot #4:	Sampling date #4	**10-May-99**
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*307 Fairview Ave North*
Additional Description:	*Seattle*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit			MW16													
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	05/08/15	0			**2.8**													
#2	08/05/15	89			**2.4**													
#3	12/10/15	216			**3.2**													
#4	03/08/16	305			**1.3**													
#5	07/12/16	431			2.0													
#6	10/19/16	530			1.2													
#7	01/25/17	628			1.0													
#8	05/31/17	754			**0.5**													
#9	09/22/17	868			**0.4**													
#10	12/29/17	966			0.9													
#11	03/09/18	1036			**0.4**													
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		
Average Concentration			na	N/A	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

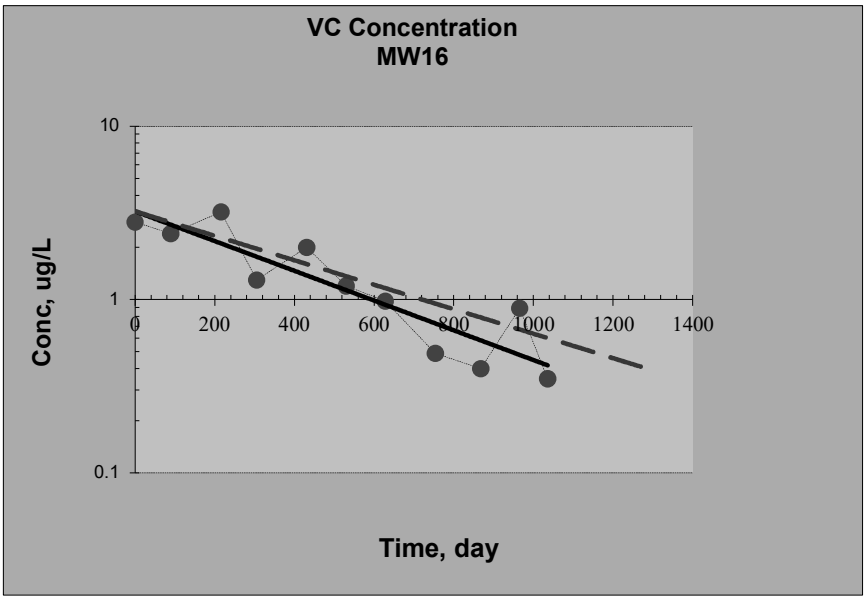
Well Location:			NA	NA	MW16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sampling Event	Date sampled	Day	Unit of elevation is feet.															
#1	12/6/08	0		95.29	92.17	94.91	94.97											
#2	9/27/09	89		93.39	93.3	93.17	93.41											
#3	4/11/11	216		96.99	96.85	96.55	96.75											
#4	9/13/12	305		94.11	94.04	93.7	93.82											
#5	4/5/13	431		95.48	95.32	94.97	95.05											
#6		530																
#7		628																
#8		754																
#9	9/22/17	868																
#10	12/29/17	966																
#11	3/9/18	1036																
#12																		
#13																		
#14																		
#15																		
#16																		
#17																		
#18																		
#19																		
#20																		

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *307 Fairview Ave North*
Additional Description: *Seattle*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW16**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.983%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.721* @50% C.L.;	*0.593* @85% C.L.	
Half Life for k_{point}, yr	*0.962* @50% C.L.;	*1.169* @85% C.L.	

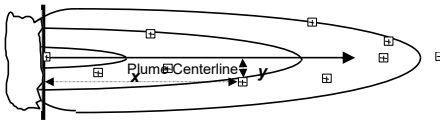


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	**1-Jan-98**
Plot #2:	Sampling date #2	**6-Jun-98**
Plot #3:	Sampling date #3	**8-Nov-98**
Plot #4:	Sampling date #4	**10-May-99**
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW18															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		5.2															
#2	8/3/15	89		4.6															
#3	12/8/15	216		9.9															
#4	3/8/16	307		8.1															
#5	7/14/16	435		1.7															
#6	10/20/16	533		4															
#7	1/26/17	631		14															
#8	6/1/17	757		14															
#9	9/23/17	871		22															
#10	12/16/17	955		22															
#11	3/10/18	1039		27															
#12	6/30/18	1151		27															
#13	9/22/18	1235		21															
#14	12/15/18	1319		24															
#15	6/15/19	1501		28															
#16	12/7/19	1676		28															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	16.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

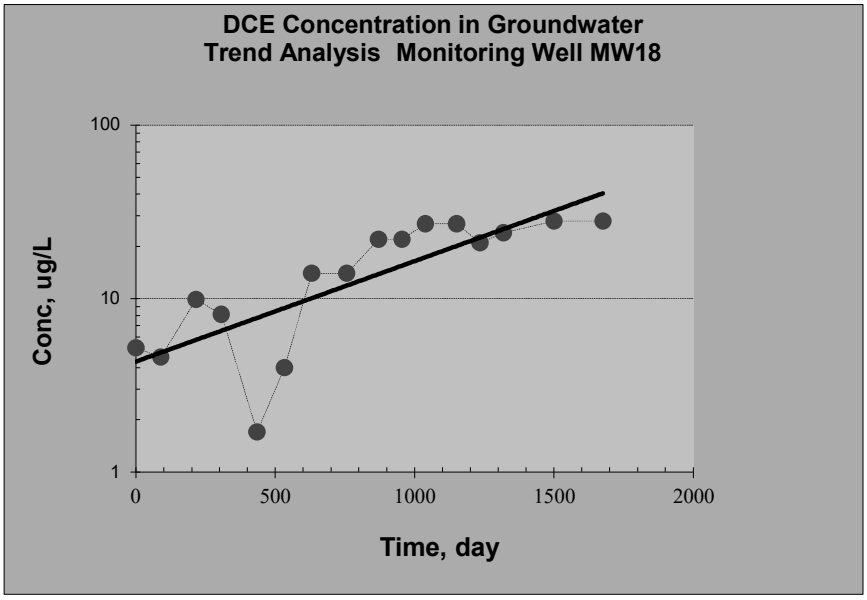
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		216																	
#4		307																	
#5		435																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW18**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.971%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

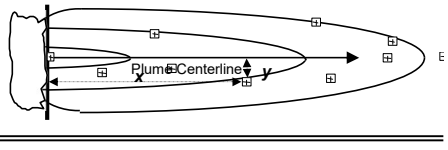


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW18															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		46															
#2	8/3/15	89		51															
#3	12/8/15	216		51															
#4	3/8/16	307		44															
#5	7/14/16	435		3.3															
#6	10/20/16	533		6.5															
#7	1/26/17	631		7.7															
#8	6/1/17	757		3.3															
#9	9/23/17	871		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		0.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		0.5															
#16	12/7/19	1676		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	13.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

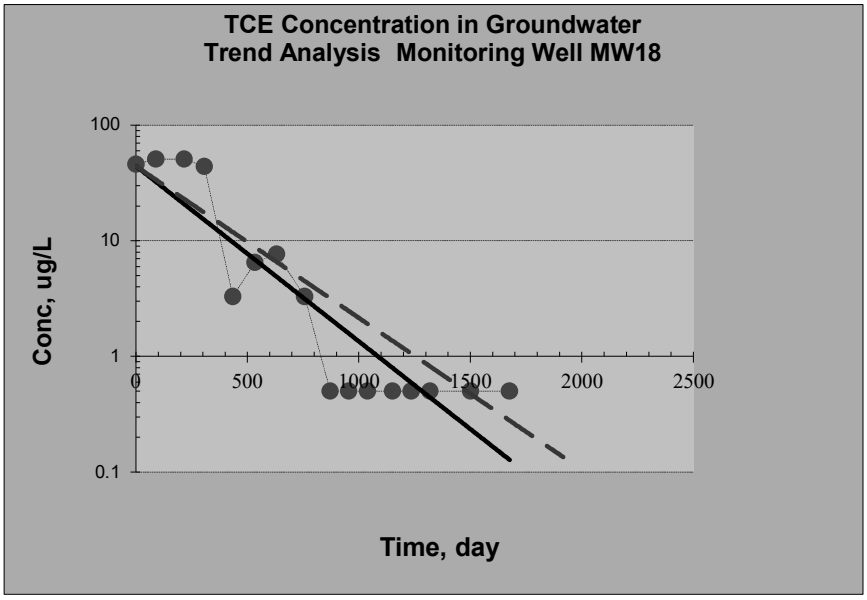
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		216																	
#4		307																	
#5		435																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW18**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*100.000%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*1.274* @50% C.L.;	*1.104* @85% C.L.	
Half Life for k_{point}, yr	*0.544* @50% C.L.;	*0.628* @85% C.L.	

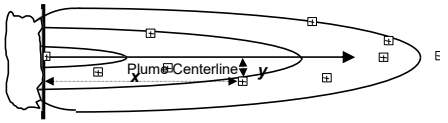


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW18															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		0.1															
#2	8/3/15	89		0.1															
#3	12/8/15	216		0.1															
#4	3/8/16	307		0.1															
#5	7/14/16	435		0.1															
#6	10/20/16	533		0.1															
#7	1/26/17	631		0.25															
#8	6/1/17	757		0.31															
#9	9/23/17	871		0.38															
#10	12/16/17	955		0.24															
#11	3/10/18	1039		0.4															
#12	6/30/18	1151		0.43															
#13	9/22/18	1235		0.42															
#14	12/15/18	1319		0.49															
#15	6/15/19	1501		0.44															
#16	12/7/19	1676		0.55															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

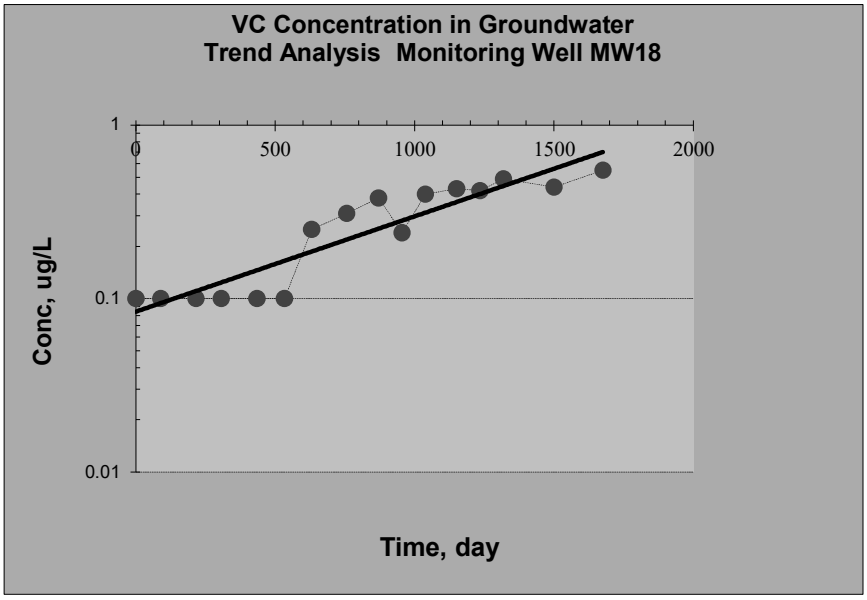
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		216																	
#4		307																	
#5		435																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW18**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*100.000%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

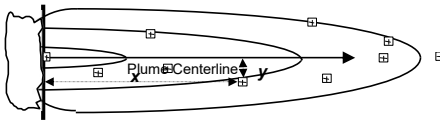


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW19															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		15															
#2	8/3/15	88		20															
#3	12/7/15	214		23															
#4	3/8/16	306		26															
#5	7/13/16	433		10															
#6	10/21/16	533		4.4															
#7	1/25/17	629		3.9															
#8	6/1/17	756		3.5															
#9	9/23/17	870		3.4															
#10	12/16/17	954		13															
#11	3/10/18	1038		12															
#12	6/30/18	1150		12															
#13	9/22/18	1234		16															
#14	6/15/19	1500		27															
#15	12/7/19	1675		35															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	14.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

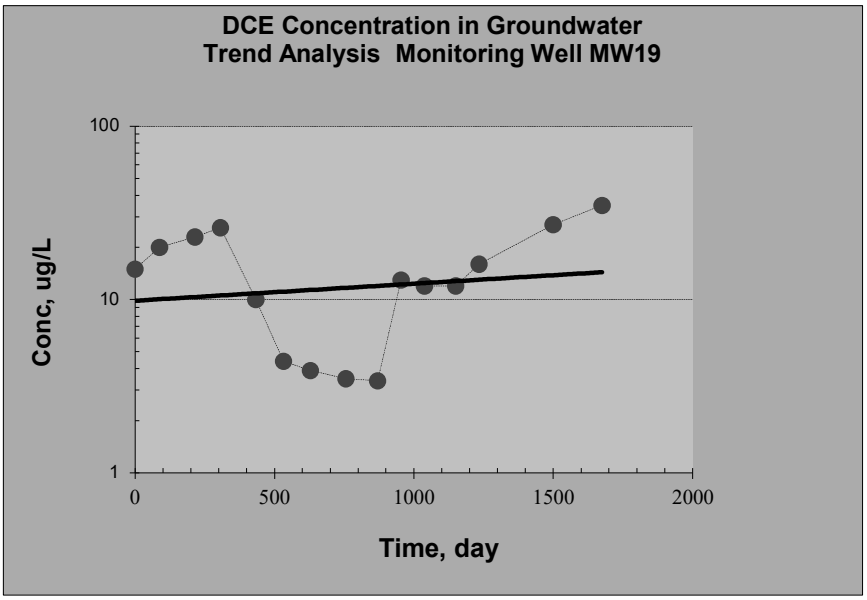
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		88																	
#3		214																	
#4		306																	
#5		433																	
#6		533																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	6/15/19	1500																	
#15	12/7/19	1675																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW19**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*39.605%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.082* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*8.408* @50% C.L.;	*NA* @85% C.L.	

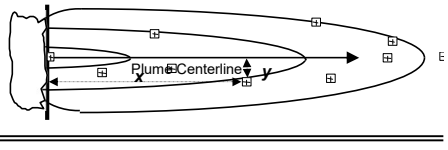


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW19															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		69															
#2	8/3/15	88		61															
#3	12/7/15	214		65															
#4	3/8/16	306		52															
#5	7/13/16	433		4.6															
#6	10/21/16	533		10															
#7	1/25/17	629		5.5															
#8	6/1/17	756		5.7															
#9	9/23/17	870		1.7															
#10	12/16/17	954		1.1															
#11	3/10/18	1038		0.5															
#12	6/30/18	1150		0.5															
#13	9/22/18	1234		0.5															
#14	6/15/19	1500		0.5															
#15	12/7/19	1675		0.5															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	18.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

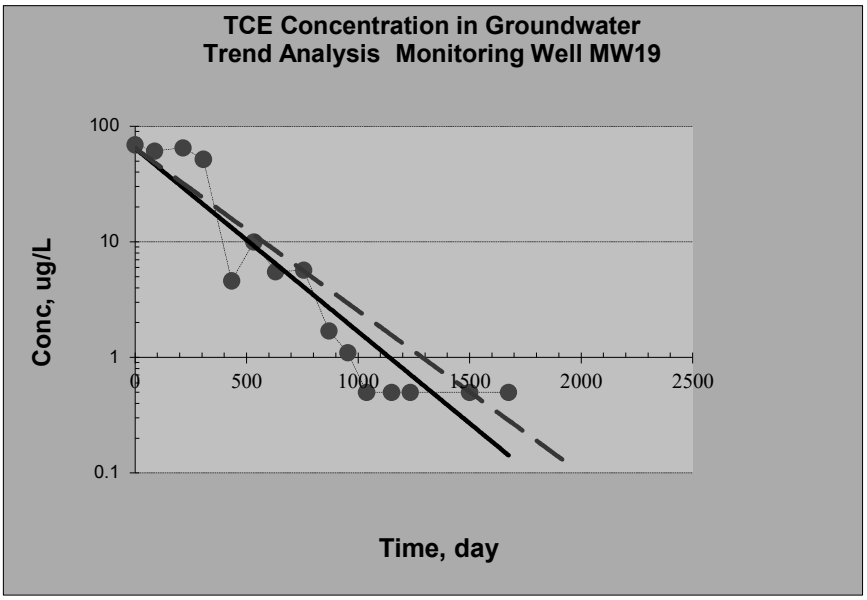
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		88																	
#3		214																	
#4		306																	
#5		433																	
#6		533																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	6/15/19	1500																	
#15	12/7/19	1675																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW19**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*100.000%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*1.333* @50% C.L.;	*1.181* @85% C.L.	
Half Life for k_{point}, yr	*0.520* @50% C.L.;	*0.587* @85% C.L.	

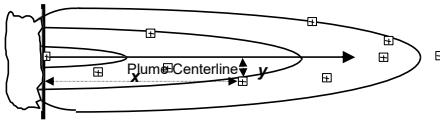


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW19															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.1.															
#2	8/3/15	88		0.1.															
#3	12/7/15	214		0.1.															
#4	3/8/16	306		0.1.															
#5	7/13/16	433		0.1.															
#6	10/21/16	533		0.4															
#7	1/25/17	629		0.3															
#8	6/1/17	756		0.44															
#9	9/23/17	870		0.97															
#10	12/16/17	954		0.97															
#11	3/10/18	1038		0.78															
#12	6/30/18	1150		0.96															
#13	9/22/18	1234		0.86															
#14	6/15/19	1500		0.79															
#15	12/7/19	1675		0.98															
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

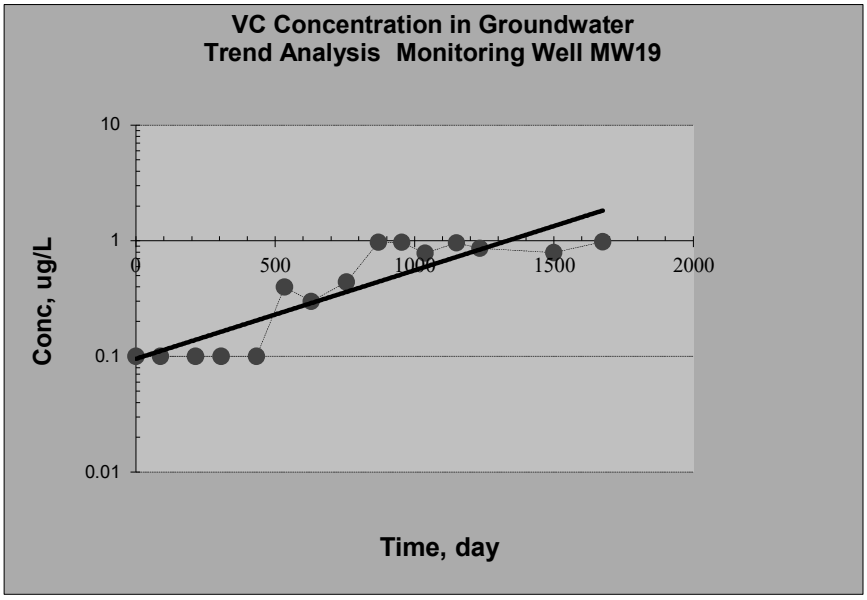
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		88																	
#3		214																	
#4		306																	
#5		433																	
#6		533																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	6/15/19	1500																	
#15	12/7/19	1675																	
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW19**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.999%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

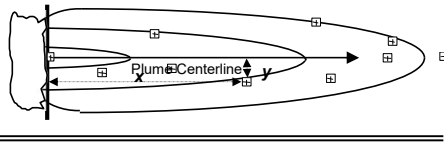


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1: Sampling date #1	
Plot #2: Sampling date #2	
Plot #3: Sampling date #3	
Plot #4: Sampling date #4	
Plot #5: Sampling date #5	
Plot #6: Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW20															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		1.5															
#2	8/3/15	89		1.2															
#3	12/7/15	215		0.5															
#4	3/9/16	308		0.5															
#5	7/15/16	436		0.5															
#6	10/20/16	533		0.5															
#7	1/25/17	630		4.1															
#8	6/1/17	757		1.2															
#9	9/24/17	872		9.5															
#10	12/16/17	955		15															
#11	3/10/18	1039		11															
#12	6/30/18	1151		7															
#13	9/22/18	1235		5.3															
#14	12/15/18	1319		4.4															
#15	6/15/19	1501		3.8															
#16	12/7/19	1676		3															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

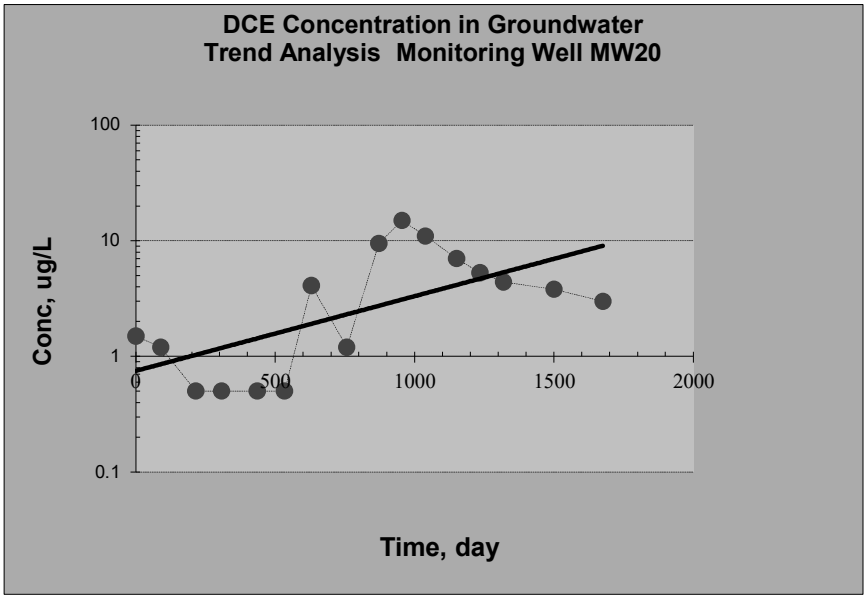
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		308																	
#5		436																	
#6		533																	
#7		630																	
#8		757																	
#9	9/24/17	872																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW20**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.193%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

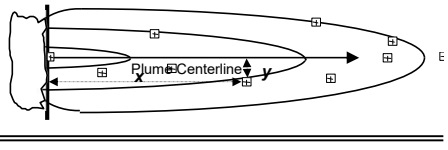


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW21															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		7.2															
#2	8/4/15	90		4.5															
#3	12/8/15	216		6.7															
#4	3/9/16	308		7.9															
#5	7/13/16	434		1.2															
#6	10/20/16	533		1.7															
#7	1/26/17	631		2.4															
#8	6/1/17	757		2.4															
#9	9/23/17	871		3.7															
#10	12/16/17	955		14															
#11	3/10/18	1039		14															
#12	6/30/18	1151		6															
#13	9/22/18	1235		6.9															
#14	12/15/18	1319		16															
#15	6/15/19	1501		29															
#16	12/7/19	1676		34															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	9.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

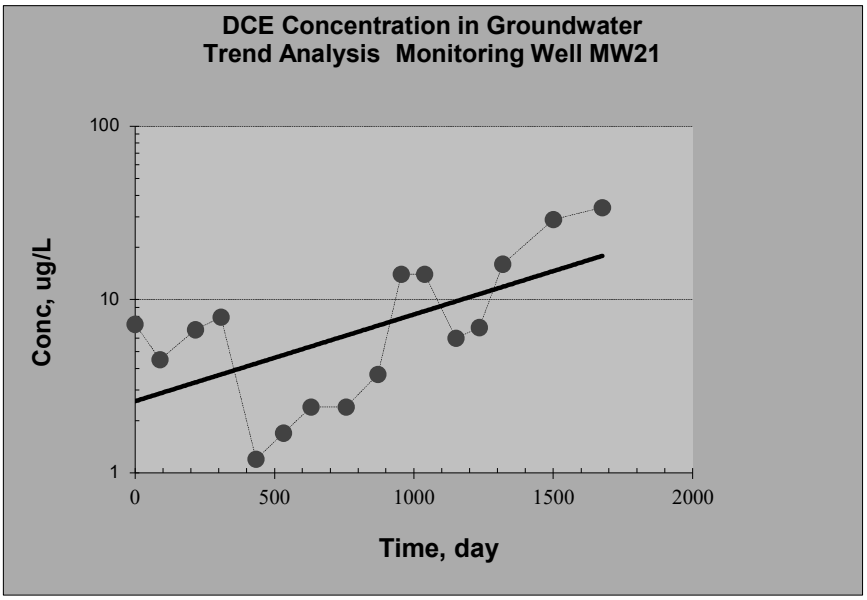
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW21**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*98.687%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

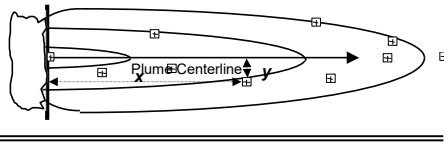


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW21															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		5.1															
#2	8/4/15	90		4.9															
#3	12/8/15	216		7.3															
#4	3/9/16	308		5.3															
#5	7/13/16	434		0.5															
#6	10/20/16	533		0.5															
#7	1/26/17	631		0.5															
#8	6/1/17	757		0.5															
#9	9/23/17	871		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		0.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		0.5															
#16	12/7/19	1676		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	7.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
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#16	12/7/19	1676																	
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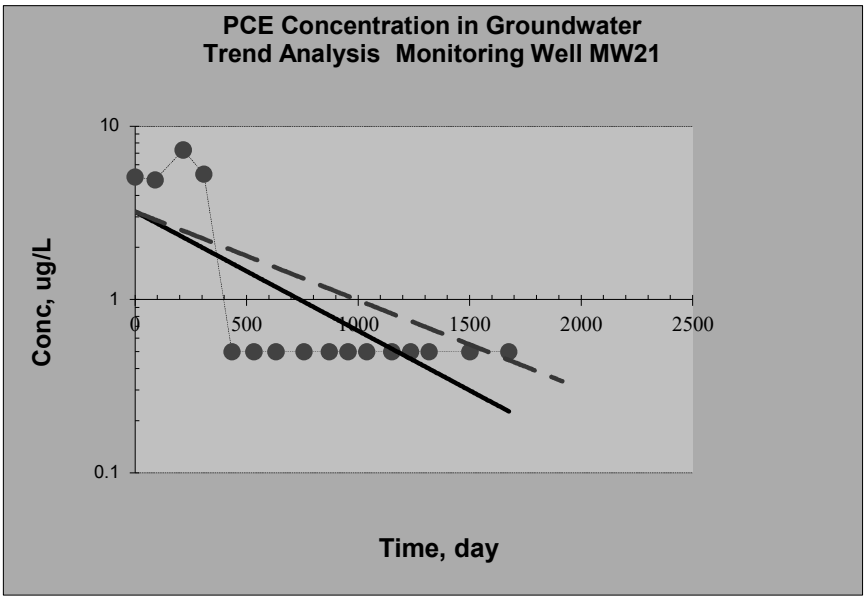
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW21**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.907%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.578* @50% C.L.;	*0.429* @85% C.L.	
Half Life for k_{point}, yr	*1.200* @50% C.L.;	*1.615* @85% C.L.	

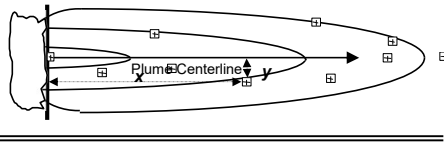


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW21															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		1.6															
#2	8/4/15	90		1.4															
#3	12/8/15	216		2															
#4	3/9/16	308		1.4															
#5	7/13/16	434		0.5															
#6	10/20/16	533		0.5															
#7	1/26/17	631		0.5															
#8	6/1/17	757		0.5															
#9	9/23/17	871		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		0.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		0.5															
#16	12/7/19	1676		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

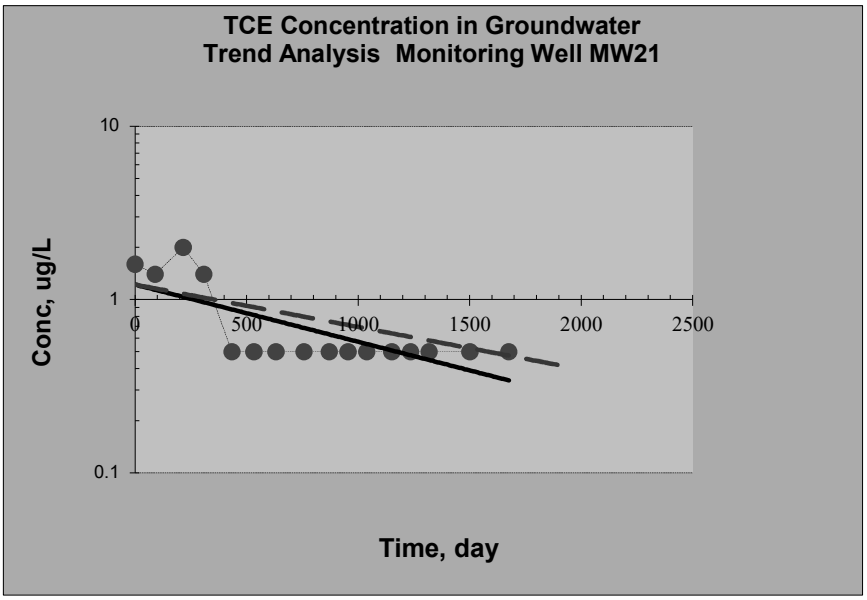
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW21**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.902%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.277* @50% C.L.;	*0.205* @85% C.L.	
Half Life for k_{point}, yr	*2.501* @50% C.L.;	*3.374* @85% C.L.	

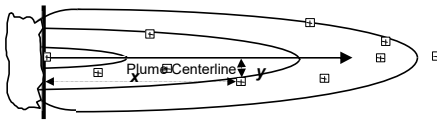


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW21															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		0.1															
#2	8/4/15	90		0.1															
#3	12/8/15	216		0.1															
#4	3/9/16	308		0.1															
#5	7/13/16	434		0.1															
#6	10/20/16	533		0.1															
#7	1/26/17	631		0.1															
#8	6/1/17	757		0.1															
#9	9/23/17	871		0.1															
#10	12/16/17	955		0.49															
#11	3/10/18	1039		0.43															
#12	6/30/18	1151		0.29															
#13	9/22/18	1235		0.3															
#14	12/15/18	1319		0.96															
#15	6/15/19	1501		1.1															
#16	12/7/19	1676		1.3															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

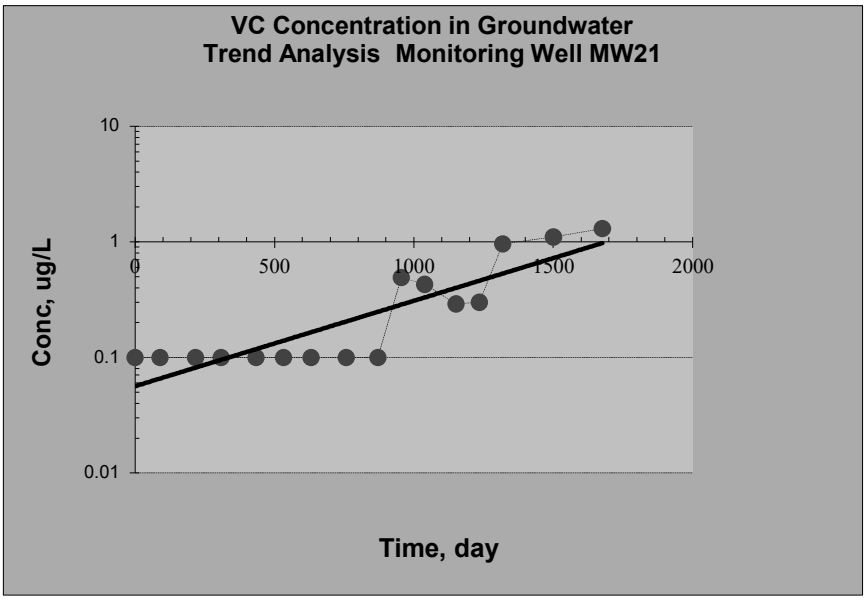
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW21**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.999%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

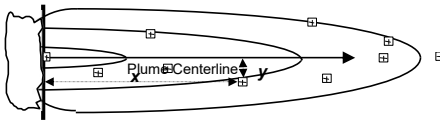


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW22															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		13															
#2	8/4/15	89		20															
#3	12/8/15	215		120															
#4	3/8/16	306		95															
#5	7/14/16	434		14															
#6	10/20/16	532		9.9															
#7	1/26/17	630		41															
#8	6/1/17	756		23															
#9	9/23/17	870		16															
#10	12/16/17	954		14															
#11	3/10/18	1038		20															
#12	6/30/18	1150		14															
#13	9/22/18	1234		16															
#14	12/15/18	1318		17															
#15	6/15/19	1500		25															
#16	12/7/19	1675		38															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	31.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

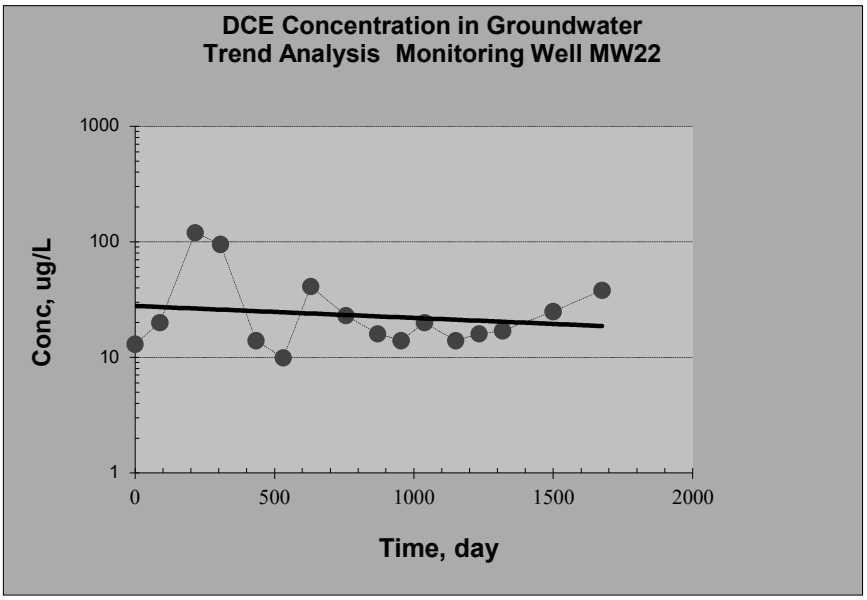
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW22**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*47.498%*		
Plume Stability?	UD	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

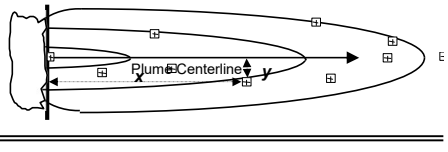


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1: Sampling date #1	
Plot #2: Sampling date #2	
Plot #3: Sampling date #3	
Plot #4: Sampling date #4	
Plot #5: Sampling date #5	
Plot #6: Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW22															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		11															
#2	8/4/15	90		17															
#3	12/8/15	216		19															
#4	3/8/16	307		28															
#5	7/13/16	434		0.5															
#6	10/20/16	533		0.5															
#7	1/26/17	631		0.5															
#8	6/1/17	757		0.5															
#9	9/23/17	871		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		0.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		1.1															
#16	12/7/19	1676		1.3															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	5.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

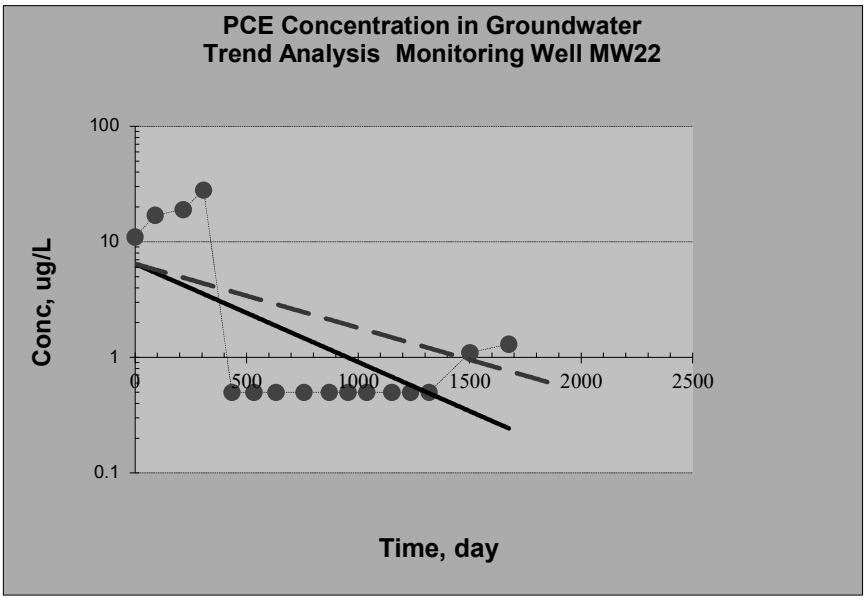
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		307																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW22**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.179%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.714* @50% C.L.;	*0.465* @85% C.L.	
Half Life for k_{point}, yr	*0.971* @50% C.L.;	*1.491* @85% C.L.	

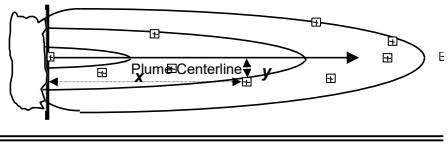


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW22															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		2.2															
#2	8/4/15	90		3															
#3	12/8/15	216		3.7															
#4	3/8/16	307		4.5															
#5	7/13/16	434		0.5															
#6	10/20/16	533		0.5															
#7	1/26/17	631		0.5															
#8	6/1/17	757		0.5															
#9	9/23/17	871		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		0.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		1.1															
#16	12/7/19	1676		1.3															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

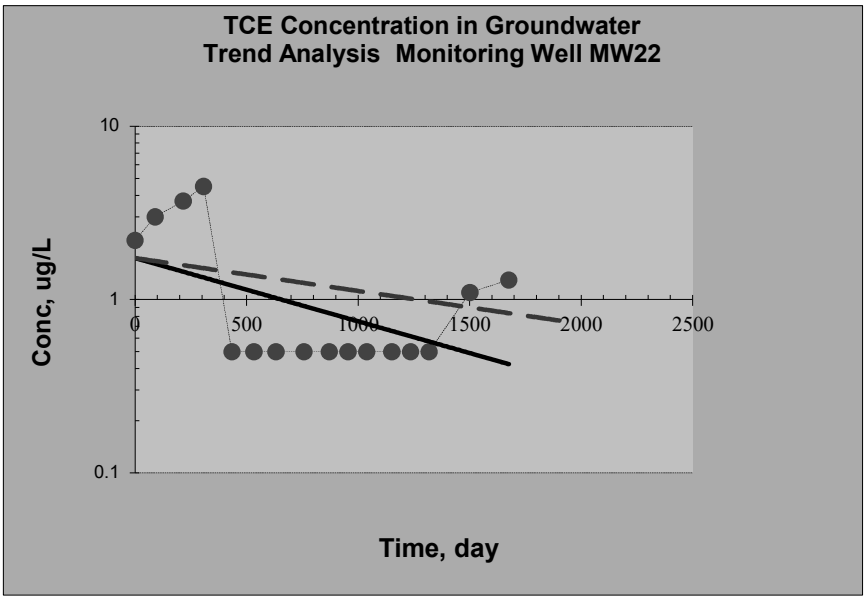
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		307																	
#5		434																	
#6		533																	
#7		631																	
#8		757																	
#9	9/23/17	871																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW22**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*95.768%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.307* @50% C.L.;	*0.159* @85% C.L.	
Half Life for k_{point}, yr	*2.259* @50% C.L.;	*4.348* @85% C.L.	

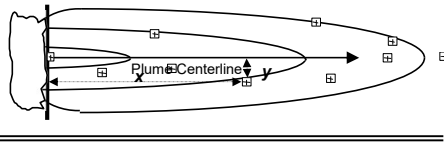


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW22															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.1															
#2	8/4/15	89		0.2															
#3	12/8/15	215		0.57															
#4	3/8/16	306		0.64															
#5	7/14/16	434		2.2															
#6	10/20/16	532		0.48															
#7	1/26/17	630		1.4															
#8	6/1/17	756		0.74															
#9	9/23/17	870		0.5															
#10	12/16/17	954		0.51															
#11	3/10/18	1038		0.52															
#12	6/30/18	1150		0.53															
#13	9/22/18	1234		0.53															
#14	12/15/18	1318		0.1															
#15	6/15/19	1500		0.72															
#16	12/7/19	1675		0.89															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

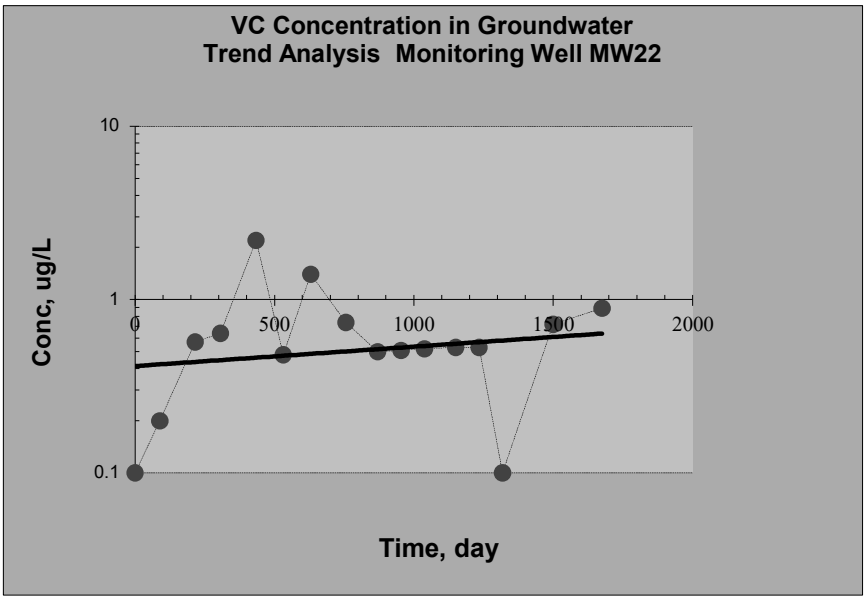
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW22**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*44.840%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.094* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*7.366* @50% C.L.;	*NA* @85% C.L.	

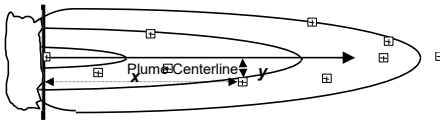


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW23															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		13															
#2	8/4/15	89		20															
#3	12/8/15	215		120															
#4	3/8/16	306		95															
#5	7/14/16	434		14															
#6	10/20/16	532		9.9															
#7	1/26/17	630		41															
#8	6/1/17	756		23															
#9	9/23/17	870		16															
#10	12/16/17	954		14															
#11	3/10/18	1038		20															
#12	6/30/18	1150		14															
#13	9/22/18	1234		16															
#14	12/15/18	1318		17															
#15	6/15/19	1500		25															
#16	12/7/19	1675		38															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	31.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

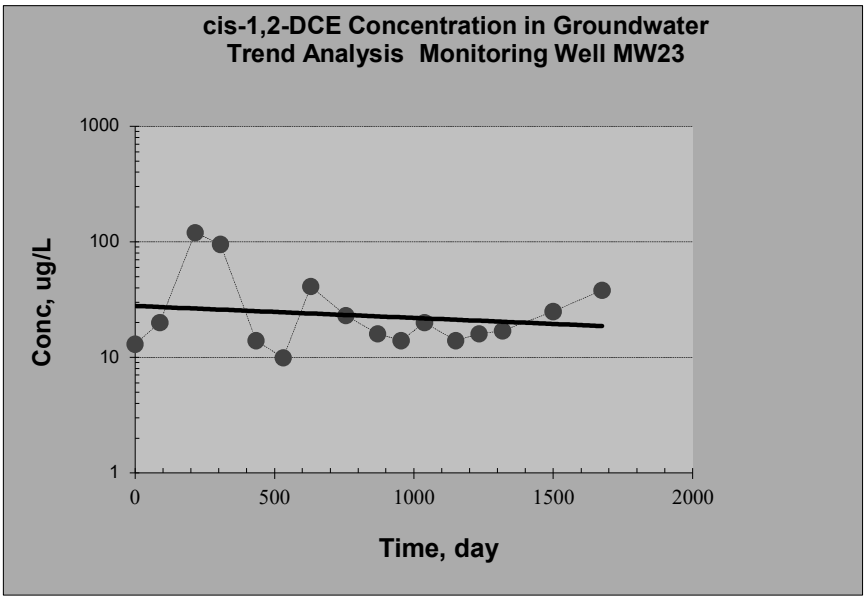
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW23**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*47.498%*		
Plume Stability?	UD	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

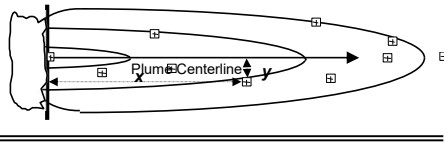


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW23															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		6.1															
#2	8/4/15	89		6.1															
#3	12/8/15	215		3.8															
#4	3/8/16	306		4.1															
#5	7/14/16	434		0.5															
#6	10/20/16	532		0.5															
#7	1/26/17	630		0.5															
#8	6/1/17	756		0.5															
#9	9/23/17	870		0.5															
#10	12/16/17	954		0.5															
#11	3/10/18	1038		0.5															
#12	6/30/18	1150		0.5															
#13	9/22/18	1234		0.5															
#14	12/15/18	1318		0.5															
#15	6/15/19	1500		0.5															
#16	12/7/19	1675		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

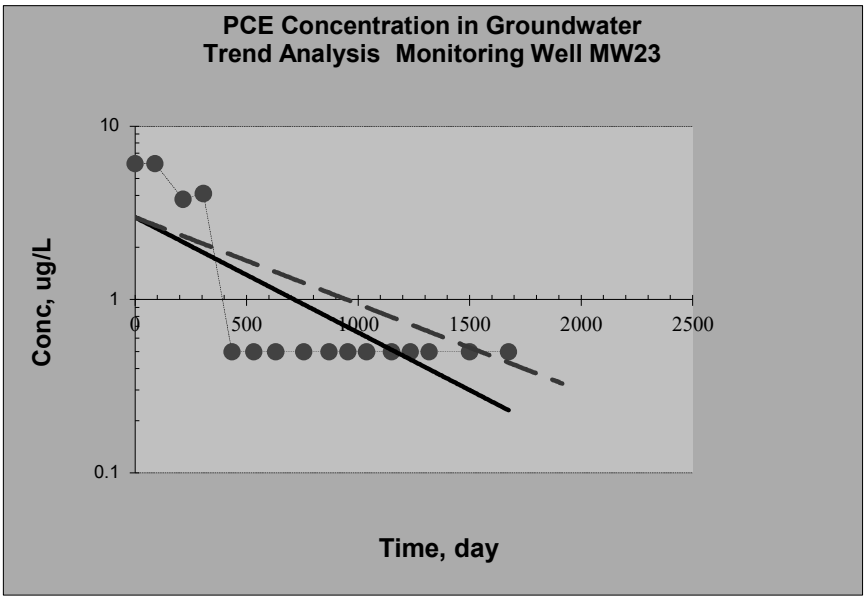
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW23**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.933%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.559* @50% C.L.;	*0.421* @85% C.L.	
Half Life for k_{point}, yr	*1.241* @50% C.L.;	*1.648* @85% C.L.	

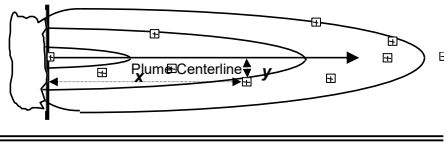


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW23															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		18															
#2	8/4/15	89		24															
#3	12/8/15	215		16															
#4	3/8/16	306		14															
#5	7/14/16	434		1.6															
#6	10/20/16	532		2.1															
#7	1/26/17	630		2.9															
#8	6/1/17	756		2.7															
#9	9/23/17	870		1.7															
#10	12/16/17	954		1.3															
#11	3/10/18	1038		0.5															
#12	6/30/18	1150		0.5															
#13	9/22/18	1234		0.5															
#14	12/15/18	1318		0.5															
#15	6/15/19	1500		0.5															
#16	12/7/19	1675		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

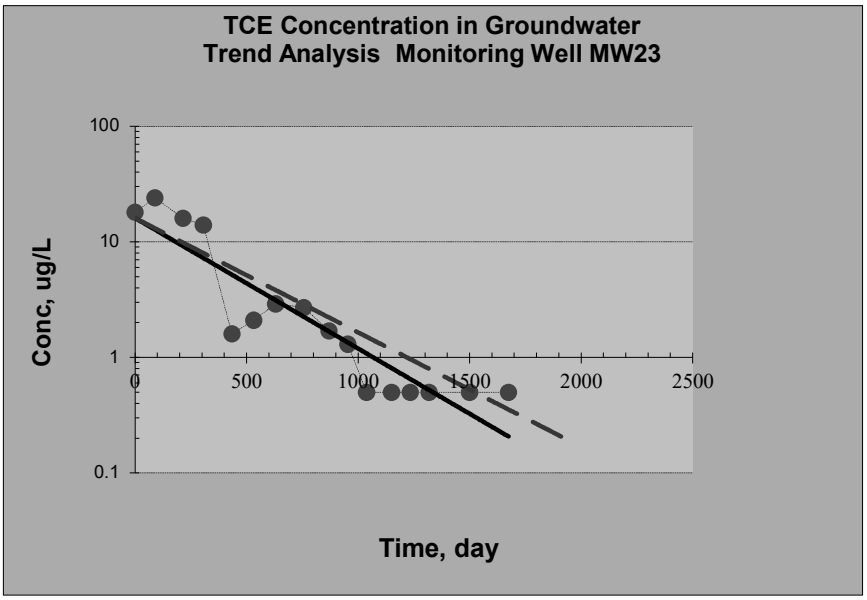
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW23**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*100.000%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.949* @50% C.L.;	*0.831* @85% C.L.	
Half Life for k_{point}, yr	*0.731* @50% C.L.;	*0.834* @85% C.L.	

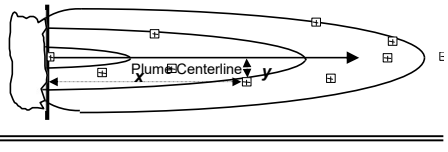


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW23															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.1															
#2	8/4/15	89		0.2															
#3	12/8/15	215		0.57															
#4	3/8/16	306		0.64															
#5	7/14/16	434		2.2															
#6	10/20/16	532		0.48															
#7	1/26/17	630		1.4															
#8	6/1/17	756		0.74															
#9	9/23/17	870		0.5															
#10	12/16/17	954		0.51															
#11	3/10/18	1038		0.52															
#12	6/30/18	1150		0.53															
#13	9/22/18	1234		0.53															
#14	12/15/18	1318		0.1															
#15	6/15/19	1500		0.72															
#16	12/7/19	1675		0.89															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

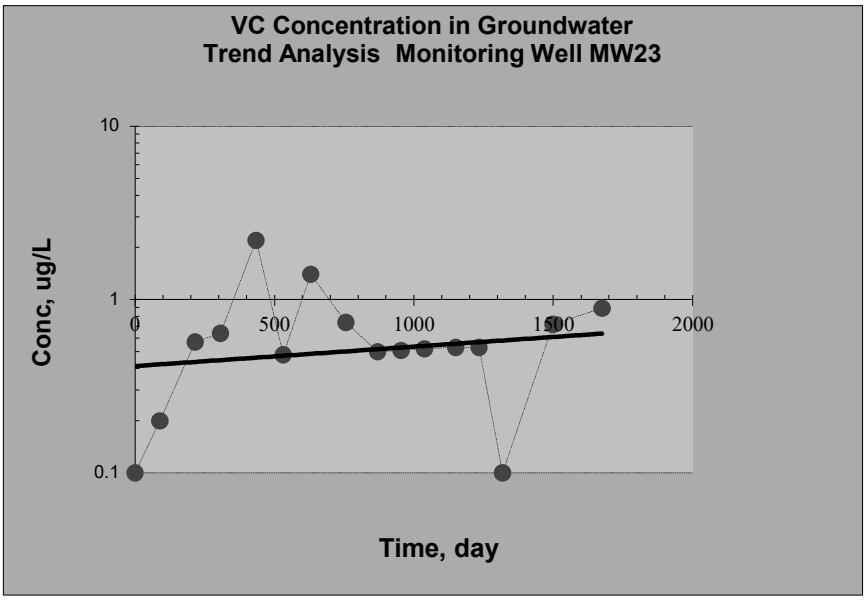
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		89																	
#3		215																	
#4		306																	
#5		434																	
#6		532																	
#7		630																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW23**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*44.840%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.094* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*7.366* @50% C.L.;	*NA* @85% C.L.	

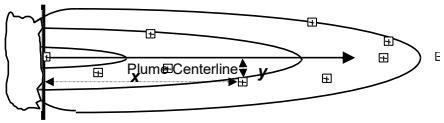


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW24															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		72															
#2	8/4/15	90		75															
#3	12/8/15	216		54															
#4	3/9/16	308		45															
#5	7/15/16	436		12															
#6	10/20/16	533		12															
#7	1/25/17	630		20															
#8	6/1/17	757		35															
#9	9/24/17	872		33															
#10	12/16/17	955		30															
#11	3/10/18	1039		25															
#12	6/30/18	1151		41															
#13	9/22/18	1235		35															
#14	12/15/18	1319		43															
#15	6/15/19	1501		84															
#16	12/7/19	1676		83															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

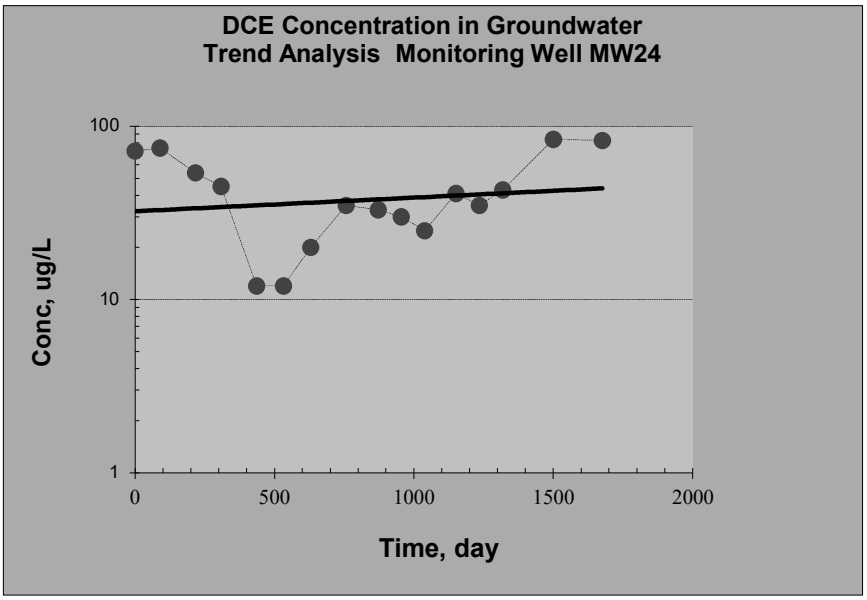
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		436																	
#6		533																	
#7		630																	
#8		757																	
#9	9/24/17	872																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW24**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*42.295%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.066* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*10.478* @50% C.L.;	*NA* @85% C.L.	

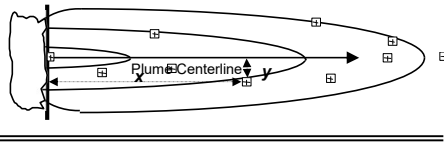


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW24															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		2.5															
#2	8/4/15	90		5.5															
#3	12/8/15	216		11															
#4	3/9/16	308		11															
#5	7/15/16	436		0.5															
#6	10/20/16	533		0.5															
#7	1/25/17	630		0.5															
#8	6/1/17	757		1.1															
#9	9/24/17	872		0.5															
#10	12/16/17	955		0.5															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		1.5															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		0.5															
#16	12/7/19	1676		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

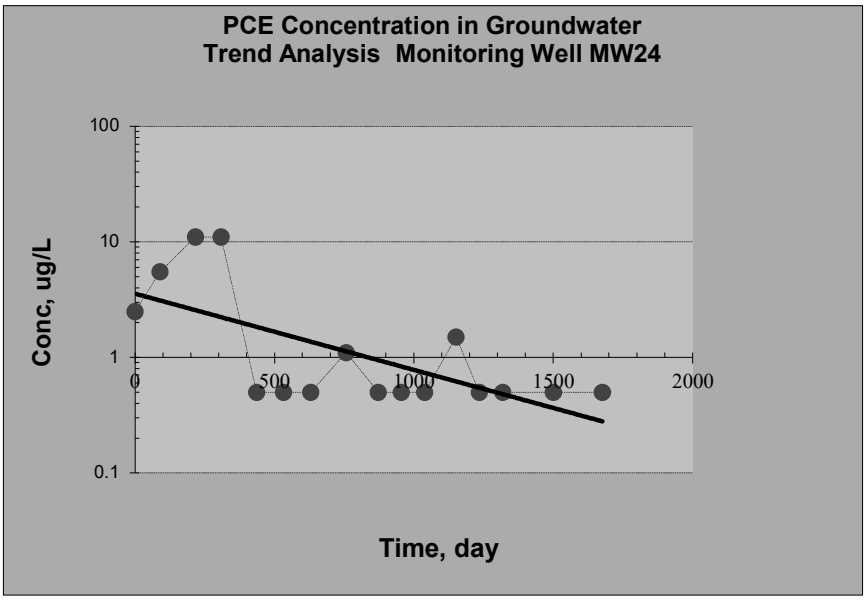
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		436																	
#6		533																	
#7		630																	
#8		757																	
#9	9/24/17	872																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW24**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*NA*		
Plume Stability?	NA	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

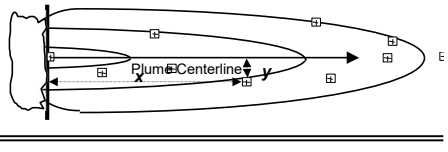


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW24															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		31															
#2	8/4/15	90		28															
#3	12/8/15	216		28															
#4	3/9/16	308		23															
#5	7/15/16	436		1.7															
#6	10/20/16	533		2.7															
#7	1/25/17	630		3.5															
#8	6/1/17	757		4.8															
#9	9/24/17	872		1.8															
#10	12/16/17	955		1.3															
#11	3/10/18	1039		0.5															
#12	6/30/18	1151		1.9															
#13	9/22/18	1235		0.5															
#14	12/15/18	1319		0.5															
#15	6/15/19	1501		0.5															
#16	12/7/19	1676		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		436																	
#6		533																	
#7		630																	
#8		757																	
#9	9/24/17	872																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

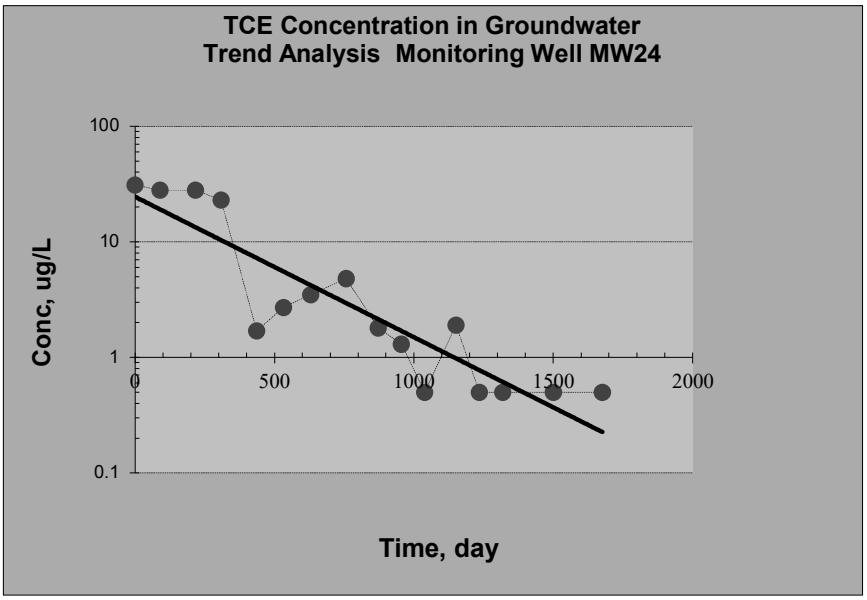
Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW24**	Confidence Level (Decision Criteria)?	85.0%

Confidence Level calculated with log-linear regression is?	*NA*	
Plume Stability?	NA	; Decision Criteria is 85%.
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.

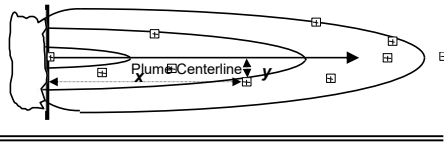


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle,Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW24															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/6/15	0		0.26															
#2	8/4/15	90		0.1															
#3	12/8/15	216		0.1															
#4	3/9/16	308		0.1															
#5	7/15/16	436		0.1															
#6	10/20/16	533		0.26															
#7	1/25/17	630		0.81															
#8	6/1/17	757		1															
#9	9/24/17	872		0.36															
#10	12/16/17	955		0.38															
#11	3/10/18	1039		0.36															
#12	6/30/18	1151		2.1															
#13	9/22/18	1235		0.37															
#14	12/15/18	1319		0.51															
#15	6/15/19	1501		1															
#16	12/7/19	1676		0.94															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	2.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

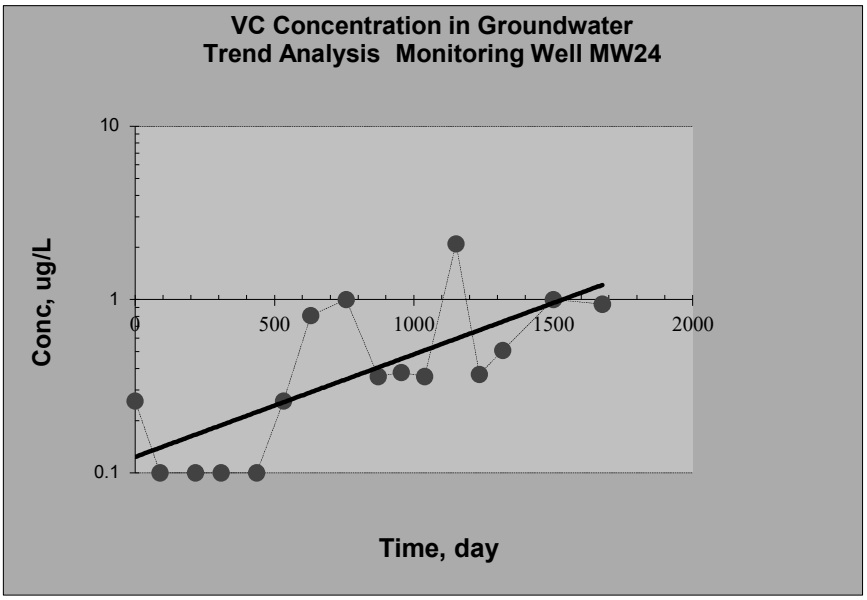
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		308																	
#5		436																	
#6		533																	
#7		630																	
#8		757																	
#9	9/24/17	872																	
#10	12/16/17	955																	
#11	3/10/18	1039																	
#12	6/30/18	1151																	
#13	9/22/18	1235																	
#14	12/15/18	1319																	
#15	6/15/19	1501																	
#16	12/7/19	1676																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle,Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW24**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.857%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

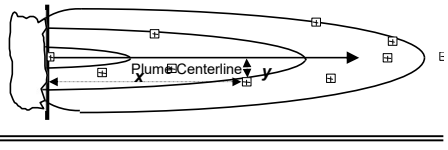


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW25															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		5.2															
#2	8/5/15	90		7.9															
#3	12/9/15	216		8.4															
#4	3/8/16	306		12															
#5	7/13/16	433		23															
#6	10/19/16	531		15															
#7	1/25/17	629		44															
#8	6/1/17	756		15															
#9	9/23/17	870		15															
#10	12/16/17	954		23															
#11	3/10/18	1038		25															
#12	6/30/18	1150		31															
#13	9/22/18	1234		37															
#14	12/15/18	1318		40															
#15	6/15/19	1500		45															
#16	12/7/19	1675		40															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	24.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	5.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

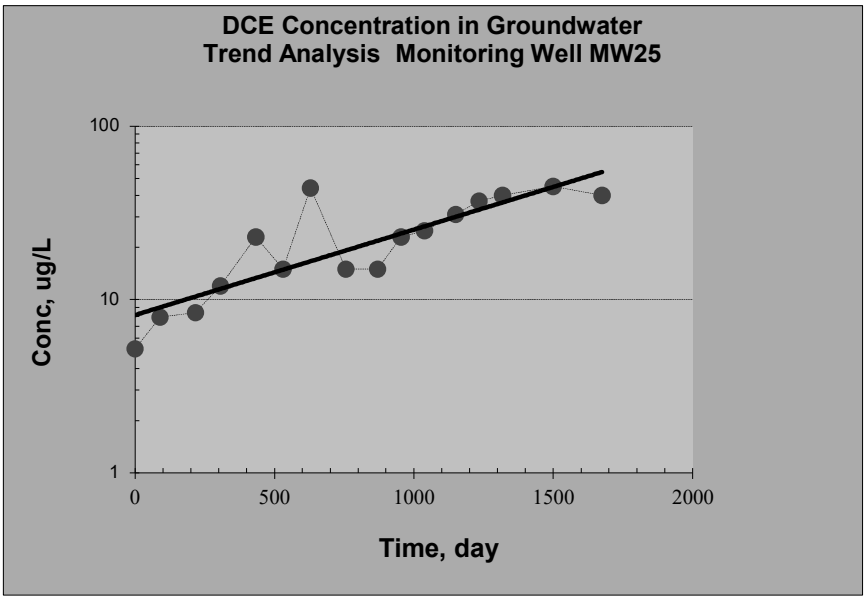
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		306																	
#5		433																	
#6		531																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW25**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.998%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

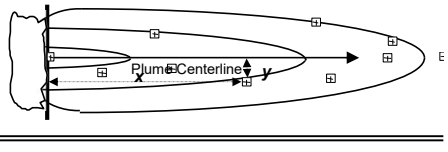


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW25															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.5															
#2	8/5/15	90		3.0															
#3	12/9/15	216		**11**															
#4	3/8/16	306		**24**															
#5	7/13/16	433		**6.1**															
#6	10/19/16	531		1.8															
#7	1/25/17	629		1.0															
#8	6/1/17	756		0.5															
#9	9/23/17	870		0.5															
#10	12/16/17	954		0.5															
#11	3/10/18	1038		0.5															
#12	6/30/18	1150		0.5															
#13	9/22/18	1234		0.5															
#14	12/15/18	1318		0.5															
#15	6/15/19	1500		0.5															
#16	12/7/19	1675		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	3.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

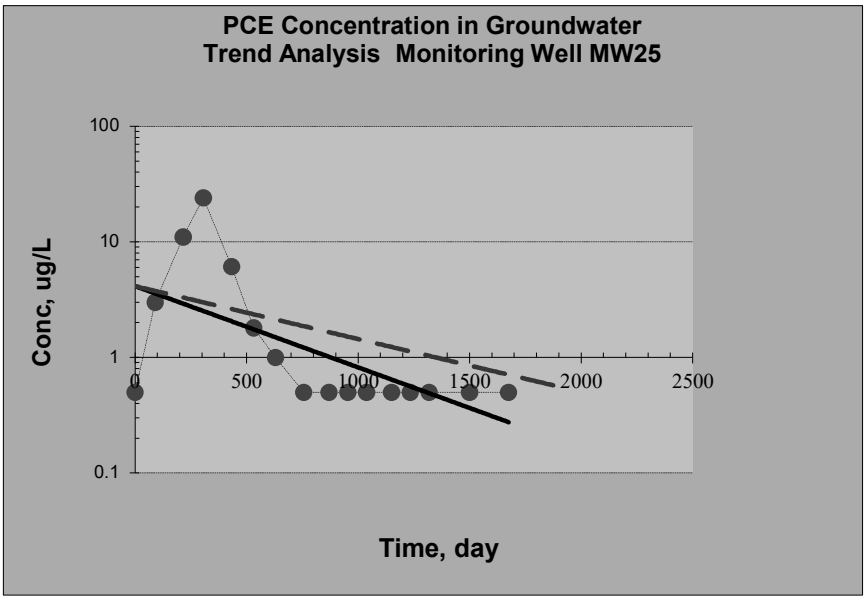
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		306																	
#5		433																	
#6		531																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW25**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.184%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.590* @50% C.L.;	*0.385* @85% C.L.	
Half Life for k_{point}, yr	*1.174* @50% C.L.;	*1.802* @85% C.L.	

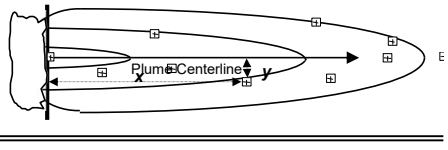


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW25															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.5															
#2	8/5/15	90		3.0															
#3	12/9/15	216		**11**															
#4	3/8/16	306		**24**															
#5	7/13/16	433		**6.1**															
#6	10/19/16	531		1.8															
#7	1/25/17	629		1.0															
#8	6/1/17	756		0.5															
#9	9/23/17	870		0.5															
#10	12/16/17	954		0.5															
#11	3/10/18	1038		0.5															
#12	6/30/18	1150		0.5															
#13	9/22/18	1234		0.5															
#14	12/15/18	1318		0.5															
#15	6/15/19	1500		0.5															
#16	12/7/19	1675		0.5															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	3.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

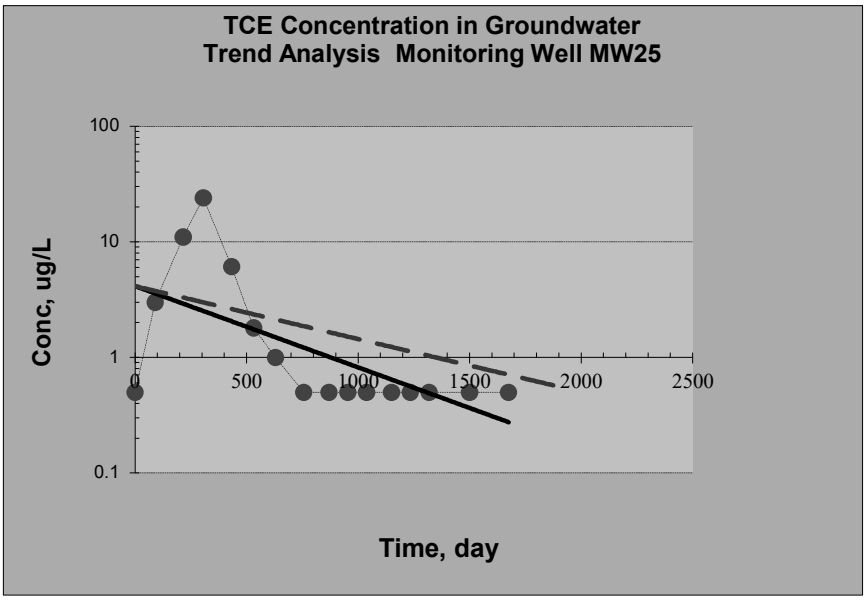
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		306																	
#5		433																	
#6		531																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW25**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.184%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.590* @50% C.L.;	*0.385* @85% C.L.	
Half Life for k_{point}, yr	*1.174* @50% C.L.;	*1.802* @85% C.L.	

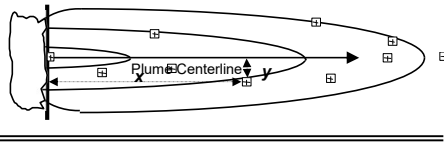


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW25															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	5/7/15	0		0.1															
#2	8/5/15	90		0.1															
#3	12/9/15	216		0.1															
#4	3/8/16	306		0.1															
#5	7/13/16	433		0.7															
#6	10/19/16	531		0.96															
#7	1/25/17	629		0.89															
#8	6/1/17	756		0.31															
#9	9/23/17	870		0.4															
#10	12/16/17	954		0.41															
#11	3/10/18	1038		0.32															
#12	6/30/18	1150		0.52															
#13	9/22/18	1234		0.46															
#14	12/15/18	1318		0.6															
#15	6/15/19	1500		0.54															
#16	12/7/19	1675		0.63															
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	0.96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

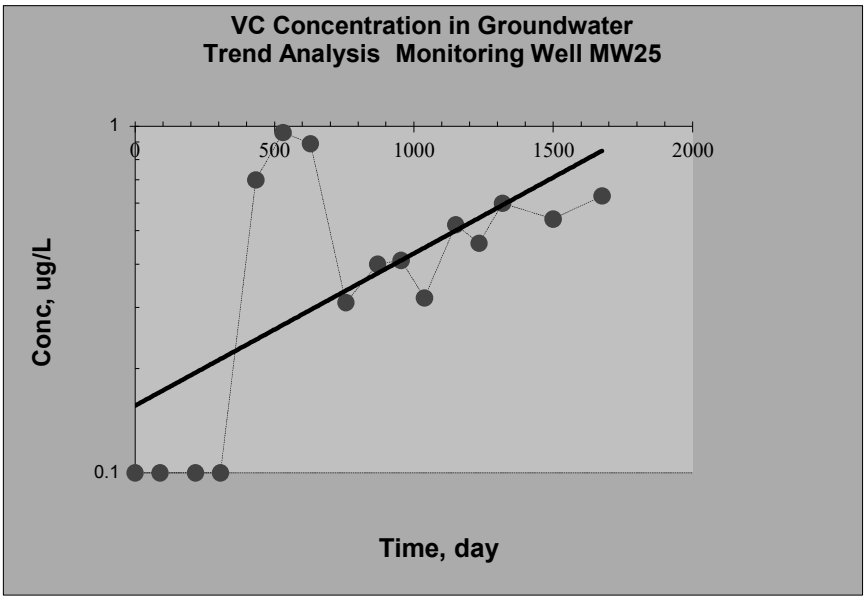
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		216																	
#4		306																	
#5		433																	
#6		531																	
#7		629																	
#8		756																	
#9	9/23/17	870																	
#10	12/16/17	954																	
#11	3/10/18	1038																	
#12	6/30/18	1150																	
#13	9/22/18	1234																	
#14	12/15/18	1318																	
#15	6/15/19	1500																	
#16	12/7/19	1675																	
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW25**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*99.211%*		
Plume Stability?	Expanding	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*NA* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*NA* @50% C.L.;	*NA* @85% C.L.	

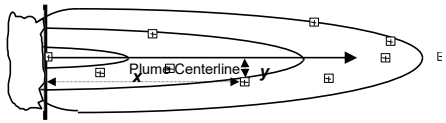


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*cis-1,2-DCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW28															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	3/15/19	0		67															
#2	6/13/19	90		80															
#3	10/9/19	208		75															
#4	12/4/19	264		52															
#5																			
#6																			
#7																			
#8																			
#9																			
#10																			
#11																			
#12																			
#13																			
#14																			
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	68.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

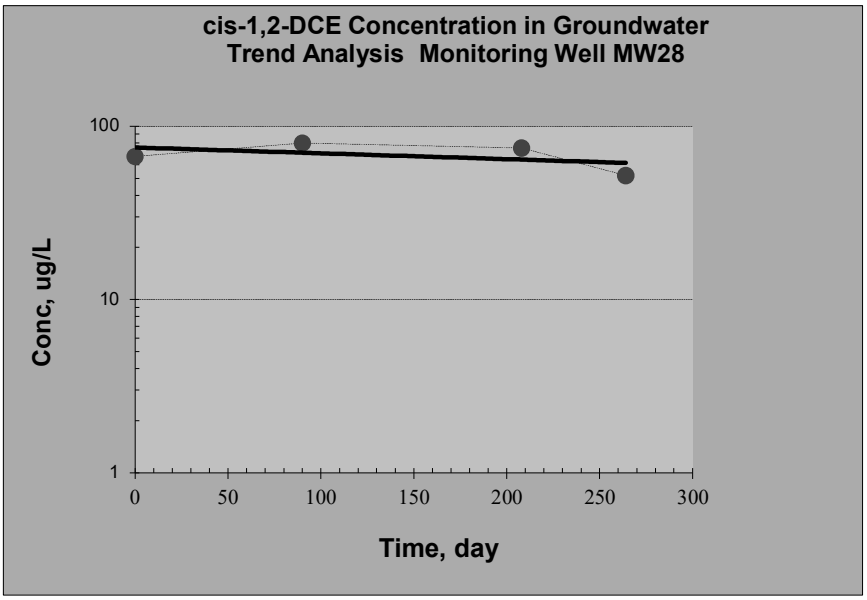
Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		208																	
#4		264																	
#5																			
#6																			
#7																			
#8																			
#9																			
#10																			
#11																			
#12																			
#13																			
#14																			
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *cis-1,2-DCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW28**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*48.395%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.283* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*2.449* @50% C.L.;	*NA* @85% C.L.	

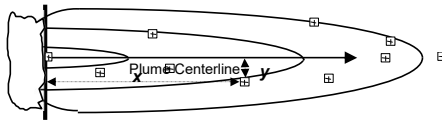


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*PCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW28															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	3/15/19	0		7.7															
#2	6/13/19	90		9															
#3	10/9/19	208		8.7															
#4	12/4/19	264		8.4															
#5																			
#6																			
#7																			
#8																			
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#13																			
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#15																			
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	8.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	7.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		208																	
#4		264																	
#5																			
#6																			
#7																			
#8																			
#9																			
#10																			
#11																			
#12																			
#13																			
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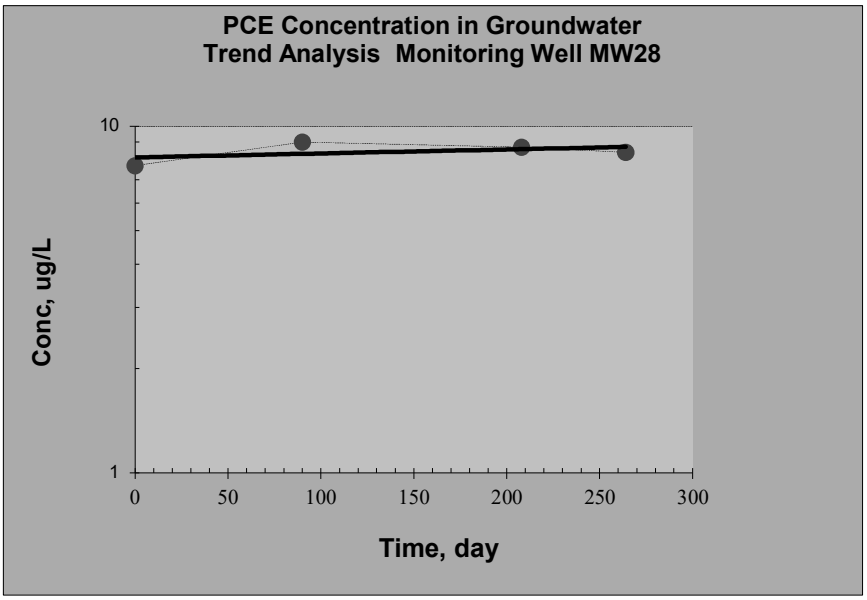
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			

Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *PCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW28**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*46.619%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.096* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*7.196* @50% C.L.;	*NA* @85% C.L.	

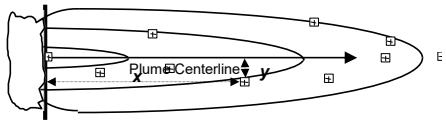


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*TCE*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW28														
Dist from source, x-direction		ft																
Off-centerline dist, y-direction		ft																
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	3/15/19	0		4.7														
#2	6/13/19	90		5.7														
#3	10/9/19	208		6.1														
#4	12/4/19	264		4.9														
#5																		
#6																		
#7																		
#8																		
#9																		
#10																		
#11																		
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#19																		
#20																		
Average Concentration			na	5.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	6.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																		
Sampling Event	Date sampled	Day																
#1		0																
#2		90																
#3		208																
#4		264																
#5																		
#6																		
#7																		
#8																		
#9																		
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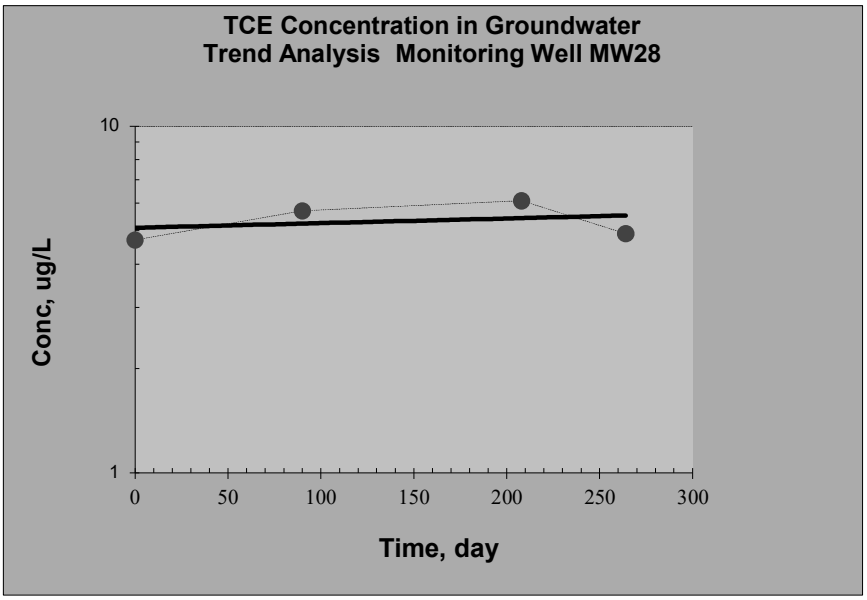
Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *TCE*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW28**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*29.681%*		
Plume Stability?	Stable	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.113* @50% C.L.;	*NA* @85% C.L.	
Half Life for k_{point}, yr	*6.148* @50% C.L.;	*NA* @85% C.L.	

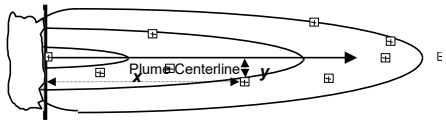


2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1:	Sampling date #1	
Plot #2:	Sampling date #2	
Plot #3:	Sampling date #3	
Plot #4:	Sampling date #4	
Plot #5:	Sampling date #5	
Plot #6:	Sampling date #6	

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*Troy Laundry Property*
Site Address:	*300 Boren Ave North Fairview Ave North*
Additional Description:	*Seattle.Washington*
Hazardous Substance	*VC*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit		MW28															
Dist from source, x-direction		ft																	
Off-centerline dist, y-direction		ft																	
Sampling Event	Date sampled	day	Unit of concentration is ug/L																
#1	3/15/19	0		0.47															
#2	6/13/19	90		0.36															
#3	10/9/19	208		0.31															
#4	12/4/19	264		0.29															
#5																			
#6																			
#7																			
#8																			
#9																			
#10																			
#11																			
#12																			
#13																			
#14																			
#15																			
#16																			
#17																			
#18																			
#19																			
#20																			
Average Concentration			na	0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			NA	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			NA	0.29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																			
Sampling Event	Date sampled	Day																	
#1		0																	
#2		90																	
#3		208																	
#4		264																	
#5																			
#6																			
#7																			
#8																			
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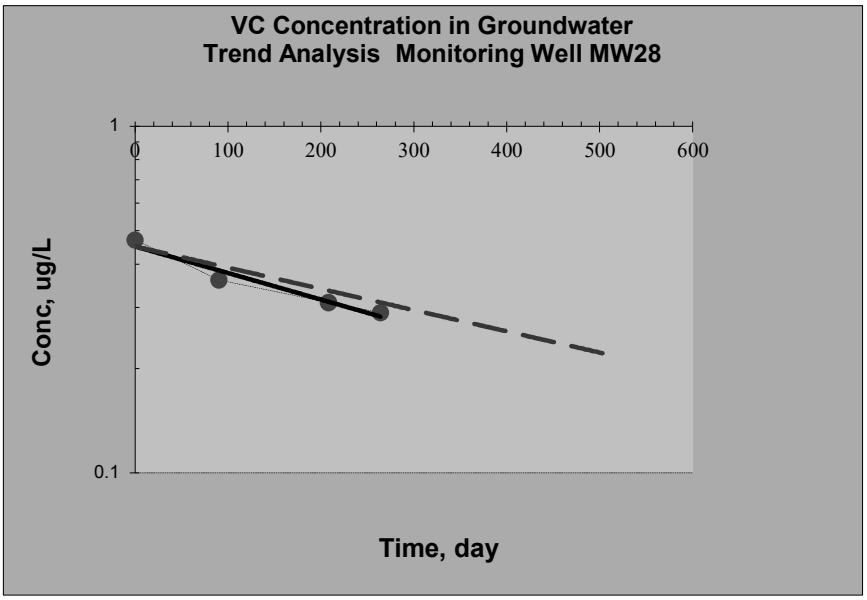
Module 2: Graphical Presentation of Historical Ground Water Data: (Well to Well Analysis)

Site Name: *Troy Laundry Property*
Site Address: *300 Boren Ave North Fairview Ave North*
Additional Description: *Seattle.Washington*
Hazardous Substance *VC*

1. Temporal Trend at a Well (Concentration vs. Time & Groundwater Elevation : well-to-well analysis)

Name of Sampling Well?	**MW28**	Confidence Level (Decision Criteria)?	85.0%
Confidence Level calculated with log-linear regression is?	*97.514%*		
Plume Stability?	Shrinking	; Decision Criteria is 85%.	
Slope: Point decay rate constant (k_{point}), yr^{-1}	*0.644* @50% C.L.;	*0.515* @85% C.L.	
Half Life for k_{point}, yr	*1.077* @50% C.L.;	*1.347* @85% C.L.	



2. Spatial and Temporal Trend along Overall Plume Length for Multiple Wells:

Plot #1: Sampling date #1	
Plot #2: Sampling date #2	
Plot #3: Sampling date #3	
Plot #4: Sampling date #4	
Plot #5: Sampling date #5	
Plot #6: Sampling date #6	