April 30, 2018

Mr. Steve Teel Washington State Department of Ecology Southwest Regional Office 300 Desmond Drive SE Lacey, WA 98503

### SUBJECT: 2017 ANNUAL SUMMARY REPORT FOR GROUNDWATER COMPLIANCE MONITORING Former Olympia Dry Cleaners Site 606 Union Avenue SE Olympia, Washington

Dear Mr. Teel:

This groundwater compliance monitoring report is the fourth quarterly report for 2017, the 2017 annual summary report, and the first quarterly report for 2018 for the Former Olympia Dry Cleaners Site (Site), prepared on behalf of the Estate of Katherine Burleson and GJG, LLC, to meet the reporting requirements of Consent Decree No. 14-2-02104-3 (State of Washington 2014) and the Cleanup Action Plan (Ecology 2014). The Site is located at 606 Union Avenue SE in Olympia, Washington (Figure 1).

In September 2015, an excavation to remove accessible soil contaminated with chlorinated solvents was completed in accordance with the Remedial Action Work Plan (RAWP; Floyd|Snider 2015a) and RAWP Addendum (Floyd|Snider 2015b). After the remedial action was completed, a Compliance Monitoring Plan (CMP) for post-remediation monitoring was developed in coordination with the Washington State Department of Ecology (Ecology; Floyd|Snider 2016). The objective of this groundwater compliance monitoring report is to document the results of the post-remediation monitoring completed in January and March 2018 and to provide a summary of the water quality results from 2017. Source removal areas and compliance monitoring locations are shown on Figure 2.

### 1.0 COMPLIANCE MONITORING SAMPLE COLLECTION

The compliance monitoring network for long-term groundwater monitoring at the Site includes monitoring wells MW-06, MW-09, MW-11, MW-13, and MW-14. Per the CMP, and in concurrence with Ecology, the monitoring frequency was reduced to semiannually in 2017 after the first year of quarterly monitoring. The active seep, located along the Cherry Street SE curb line and north of the main excavation area, was monitored on a quarterly basis in 2017 to evaluate surface discharges of the groundwater seep.

This section describes the seep water sampling completed in January 2018 (fourth quarter monitoring extension was granted by Ecology) and March 2018 (first quarter 2018) and the first quarter groundwater monitoring completed in March 2018. There were no significant deviations from the CMP during the monitoring events; the field methods used were in substantive accordance with the CMP. The compliance monitoring locations are shown on Figure 2.

The fourth quarter (January 2018) water samples were submitted to Libby Environmental, Inc., in Olympia, Washington, and the first quarter (March 2018) water samples were submitted to Fremont Analytical, Inc. (Fremont), in Seattle, Washington. Samples were submitted under chain of custody for analysis of the chemicals of concern (COCs) at the Site, which are tetrachloroethene (PCE), trichloroethene (TCE), *cis*- and *trans*-1,2-dichloroethene (DCE), 1,1-DCE, and vinyl chloride.

The analytical results from the seep monitoring are provided in Table 1, and the groundwater results are summarized in Table 2. The 2017 and March 2018 seep/surface water and groundwater monitoring results are shown on Figure 3. A copy of the laboratory reports are included in Attachment 1.

### 1.1 Seep Treatment

As discussed in previous compliance monitoring reports, a carbon filter sock has been installed at the point of the seep expression and directly downgradient since September 2016. A second carbon sock was installed north of the primary sock along the curb line in March 2017 to provide more contact time to improve removal efficiency. During each quarterly monitoring event, the downgradient carbon sock was rotated and moved to the upgradient position and a new carbon sock was placed in the downgradient position. Both carbon socks are held in place by concrete screws in the curb with a hydraulic cement barrier on the upgradient edge to divert stormwater.

Filtered seep water samples were collected during the fourth quarter 2017 (January 2018) and first quarter 2018 (March 2018) and demonstrated that the filter sock is effective at reducing PCE, TCE, and vinyl chloride concentrations in seep water. During each sampling event, the sock was rotated over and lengthwise, then re-bolted to the curb on either end of the sock.

### **1.2** Seep Water Sample Collection and Results

The groundwater seep was observed to be flowing between curb sections along the curb line of Cherry Street SE, north of the main excavation area and the former seep area, and between the concrete curb and the asphalt roadway (Figure 2). The seep is being expressed through a small void in the asphalt under the curb at a relatively low flow rate (slow trickle). A grab sample was collected from the seep (SEEP) on January 4, 2018 (fourth quarter 2017), and on March 30, 2018 (first quarter 2018), while the carbon filter sock was removed for repositioning. A grab sample was also collected from the discharge of the filter sock after rotating and re-installing the activated carbon filter sock (SEEP-POST) during both events. It should be noted that due to a

vehicle parked in the vicinity of the sock that blocked access for sample collection, the SEEP-POST sample in January was collected on January 8, 2018, a few days after the collection of the SEEP sample. In addition, a sample was collected downhill of the seep at the point of discharge on the southern end of the catch basin on the west side of Cherry Street SE (SEEP-CB; Figure 2) during the March 2018 sampling event per Ecology's request. These results are presented in Table 1. Copies of laboratory reports for both monitoring events are included in Attachment 1.

The unfiltered seep water samples collected from the curb line (SEEP) had COC concentrations exceeding their respective cleanup levels during both monitoring events. The water samples taken at the seep immediately downstream of the carbon filter sock (SEEP-POST) demonstrated a significant improvement in water quality and results from both monitoring events confirm that the carbon filter sock is providing adequate treatment of seep water at the point of discharge from the carbon sock. The water sample collected in March 2018 at the point of compliance (POC), which is the point of discharge at the catch basin (SEEP-CB), did not have detectable concentrations of COCs, which demonstrates compliance with water quality standards and Site cleanup levels at the POC.

### 1.3 Groundwater Sample Collection and Results

Groundwater samples were collected from the five compliance wells (MW-06, MW-09, MW-11, MW-13, and MW-14) on March 30, 2018, using standard low-flow sampling methods described in the CMP. The depth to water was recorded with an electronic water level meter prior to sample collection at all monitoring wells. Monitoring well MW-14 (artesian) was flowing but at a slow enough rate that a low-flow sample was collected. Analytical results from this sampling event are presented in Table 2, groundwater elevations are presented in Table 3, a copy of the laboratory report is included in Attachment 1, and the groundwater sample collection forms are included in Attachment 2.

Site COCs were not detected at a concentration greater than Site cleanup levels during the March 2018 monitoring event. COCs were detected at concentrations less than the cleanup levels in the groundwater samples collected from monitoring wells MW-09, MW-11, and MW-14, and COCs were not detected at concentrations greater than laboratory detection limits in groundwater samples collected from monitoring wells MW-06 or MW-13. Monitoring well MW-06 was mostly dry with a slow recharge rate, consistent with previous monitoring events, and monitoring wells MW-11 and MW-14 were both artesian during this sampling event.

### 1.4 Data Validation

A Compliance Screening (Stages 1 and 2A) data quality review was performed on volatile organic compound data resulting from laboratory analysis by U.S. Environmental Protection Agency (USEPA) Method 8260C. The analytical data were validated by Floyd|Snider in accordance with the USEPA *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA 2017).

For all analyses, the analytical holding times were met and the method blanks had no detections. The surrogate, matrix spike, matrix spike duplicate, and laboratory control sample recoveries and sample/sample duplicate relative percent differences all met USEPA requirements. No qualifiers were added to the analytical results based on the data quality review. Data are determined to be of acceptable quality for use as reported by the laboratory.

### 2.0 2017 ANNUAL SUMMARY

In 2017, groundwater samples were collected on a semiannual basis (March and September), and seep samples were collected on a quarterly basis (March, June, September, and January 2018). Water samples were analyzed for the site COCs, which are PCE, TCE, *cis*- and *trans*-1,2-DCE, 1,1-DCE, and vinyl chloride. The analytical data for surface water, including the seep, are summarized in Table 1. A summary of the 2017 groundwater analytical results along with data from the pre-remediation sampling event in August 2013 (SES 2013) are provided in Table 2. The results of the March 2018 seep and groundwater sample event are also summarized in Tables 1 and 2. The compliance monitoring locations are shown on Figure 2, and the 2017 and March 2018 groundwater and surface water monitoring results are shown on Figure 3.

### 2.1 Groundwater Elevation Measurements

During each monitoring event, the depth to water was recorded with an electronic water level meter prior to sample collection at all monitoring wells. Groundwater elevations were determined using top-of-casing survey information from SoundEarth Strategies, Inc. Groundwater elevations collected in 2017 and March 2018 are summarized in Table 3. The primary groundwater flow direction at the Site is to the north.

### 2.2 Groundwater Analytical Summary

The second year of groundwater sampling has shown that groundwater conditions are stable or decreasing and that there has been an overall decline in groundwater contaminant concentrations at the Site since the completion of source removal activities in 2015. Site COCs have not historically been reported in groundwater samples collected from monitoring wells MW-06, MW-11, and MW-13, and continued to remain non-detect through 2017, suggesting that contaminant migration is not occurring.

During 2017, vinyl chloride was the only COC present at concentrations greater than the cleanup levels in groundwater collected from MW-09, and PCE, TCE, and vinyl chloride were present at concentrations greater than the cleanup levels in groundwater collected from monitoring well MW-14.

The historically low TCE concentrations observed in groundwater collected from well MW-09 and decreasing concentrations of lighter PCE breakdown products indicate that the remaining

groundwater plume is attenuating. Without further input from a soil source, this plume is expected to continue to attenuate.

The temporary post-excavation increase in PCE concentrations observed in groundwater collected from monitoring well MW-14 in 2016 was followed by decreases in PCE and its breakdown product concentrations later in 2016 and in 2017, indicating that the residual soil contamination that remains beneath the Q-Tip building is likely attenuating. With a limited amount of residual soil contamination left in place after excavation, groundwater concentrations are expected to continue to attenuate over time.

During the March 2018 monitoring event, Site COCs were not detected at concentrations greater than Site cleanup levels in groundwater collected from all compliance wells.

### 2.3 Seep Analytical Summary and Treatment

The concentrations of Site COCs at the seep during 2017 monitoring were relatively stable, with a slight increase observed during the wet season, consistent with 2016. However, the seep still contained PCE and vinyl chloride at concentrations greater than the cleanup levels during all four quarters of 2017. TCE was detected at a concentration greater than the cleanup level in the fourth quarter only, also consistent with 2016.

An additional seep grab sample was collected during the first quarter of 2018, downhill at the point of discharge on the southern end of the catch basin on the west side of Cherry Street SE (Figure 2). The water sample taken at the seep discharge location at the catch basin (SEEP-CB) had no detections of Site COCs, confirming that the water quality at the POC is in compliance.

Per the CMP, contingency actions for addressing the groundwater seep identified between the curb line and the asphalt roadway along Cherry Street SE (Figure 2) were evaluated, and an activated carbon filter sock was installed in September 2016. A second filer sock (in series) was installed in March 2017 to improve resonance time and removal efficiency. In accordance with permit requirements, a catch basin filter was also installed in the downgradient catch basin in 2016 as an added protection measure.

Water quality at the seep, which again showed increased TCE and PCE concentrations in the fourth quarter, suggests that infiltrating rain water may be continuing to remobilize shallow contaminants in the vicinity of the seep. Given the limited amount of residual contamination, however, long-term trends for the seep are expected to be similar to groundwater trends, which show overall decreasing concentrations. Overall, concentrations of detected COCs (PCE, TCE, *cis*-1,2-DCE and vinyl chloride) in the SEEP sample in 2017 were less than in 2016. Results confirmed that the carbon filters are providing adequate treatment for seep water at the point of discharge, sufficient to meet the cleanup levels.

### 3.0 COMPLIANCE MONITORING PLAN MODIFICATIONS AND SCHEDULE

Consistent with the CMP, the groundwater monitoring frequency was reduced to semiannual in 2017, after the first year of quarterly monitoring. After the completion of the second year of compliance monitoring and in consultation with Ecology during March 2018, an additional reduction in frequency for groundwater sample collection is recommended along with a reduced monitoring well network based on stable and decreasing concentrations, as described below.

### 3.1 Compliance Plan Modifications

Groundwater compliance monitoring will be conducted at a frequency of every 18 months and will alternate between September and March to obtain alternating dry and wet season data. Monitoring wells MW-11 and MW-13, which have historically not had detectable concentrations of Site COCs, are proposed to be removed from the future monitoring well network. Downgradient monitoring well MW-6, which is located more than 150 feet downgradient of well MW-14, also has never had detectable concentrations of COCs but will not be removed from the compliance well network at this time per Ecology's request.

Quarterly monitoring of the seep (pre-and post-treatment) will continue in 2018, until treatment of the seep is no longer required. The carbon sock will be replaced during each quarterly sampling event. If COCs are not detected in a seep sample or are detected at concentrations less than the cleanup levels for four quarters, additional monitoring of that seep will not be warranted.

### 3.2 Compliance Monitoring Schedule

The next compliance monitoring event will be completed in June 2018 and will consist of the collection of surface water samples from the seep and the discharge of the filter sock to continue documenting the treatment efficiency of the filter sock. Quarterly monitoring of the seep will also be performed in September and December 2018.

Upon Ecology concurrence of the modified compliance monitoring schedule described above in Section 3.1, additional groundwater monitoring will not be conducted in 2018. The next compliance monitoring of groundwater will occur in September 2019 and will be performed every 18 months thereafter for the foreseeable future. An annual summary report for 2018 will be submitted to Ecology by February 28, 2019.

### 3.3 Continued Seep Treatment

A right-of-way obstruction permit was acquired from the City of Olympia in September 2016 in order to install the activated carbon filter sock. An extension of the right-of-way permit was requested in March 2018 and granted through March 2019. The filtration socks are routinely changed out to ensure that breakthrough at concentrations greater than the cleanup level does

not occur. The filter sock is monitored by the owner on a weekly basis per the right-of-way obstruction permit requirements.

### 4.0 REFERENCES

- Floyd|Snider. 2015a. *Former Olympia Dry Cleaners Site Remedial Action Work Plan*. Prepared for Washington State Department of Ecology. 15 April.
  - \_\_\_\_\_. 2015b. *Memorandum Re: Remedial Action Work Plan Addendum, Former Olympia Dry Cleaners Site*. Prepared for Steve Teel, Washington State Department of Ecology. 22 June.
- \_\_\_\_\_. 2016. Former Olympia Dry Cleaners Site Compliance Monitoring Plan. Prepared for Washington State Department of Ecology. 28 January.
- SoundEarth Strategies, Inc. (SES). 2013. Groundwater Monitoring Data (obtained from Washington State Department of Ecology Environmental Information Management Database). 13 August.
- State of Washington. 2014. Consent Decree No. 14-2-02104-3, State of Washington, Department of Ecology v. The Estate of Katherine Burleson and GJG, LLC. Thurston County Superior Court. 31 October.
- U.S. Environmental Protection Agency (USEPA). 2017. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA-540-R-2017-002/OLEM 9355.0-136. Office of Superfund Remediation and Technology Innovation. Washington, D.C. January.
- Washington State Department of Ecology (Ecology). 2014. Former Olympia Dry Cleaners Site Cleanup Action Plan. 29 October.

Sincerely yours, F L O Y D | S N I D E R

Lynn Grochala Senior Environmental Scientist

Encl.: Table 1 Surface Water Monitoring Data Table 2 Groundwater Monitoring Data Table 3 Groundwater Elevation Data Figure 1 Site Vicinity Map Figure 2 Source Removal Areas and Compliance Monitoring Locations Figure 3 2017 and March 2018 Groundwater and Surface Water Monitoring Results Attachment 1 Laboratory Reports Attachment 2 Groundwater Sample Collection Field Forms

Tables

Table 1Surface Water Monitoring Data

						trans -1,2-		
Sample			Tetrachloroethene	Trichloroethene	<i>cis</i> -1,2-Dichloroethene	Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Location	Status	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
	Pre-remediation <sup>1</sup>	7/10/2008	390	580	2,500	12	2.6	190
		3/8/2016	33	15	110	1.0 U	1.0 U	15
		3/30/2016	23	17	160	1.0 U	1.0 U	22
		6/9/2016	16	18	170	1.3	1.0 U	20
		9/29/2016	16	30	180	1.0 U	1.0 U	16
SEEP	Post romodiation	12/20/2016	56	44	110	1.0 U	1.0 U	10
	Post-remediation	3/10/2017	13	7.6	19	1.0 U	1.0 U	1.8 J
		6/21/2017	12	8.5	57	1.0 U	1.0 U	6.2
		10/31/2017	14	19	74	1.0 U	1.0 U	12
		1/4/2018	20	34	138	1.0 U	1.0 U	7.6
		3/30/2018	19	16	60	1.0 U	1.0 U	1.9
	Pre-remediation	10/15/2008	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
CEED CD <sup>2</sup>		6/9/2016	1.0 U	0.50 U	1.8	1.0 U	1.0 U	0.20 U
SEEP-CB	Post-remediation	3/22/2017	1.0 U	0.72	1.3	1.0 U	1.0 U	0.20 U
		3/30/2018	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		9/29/2016	1.0 U	0.55	2.3	1.0 U	1.0 U	0.62
		12/20/2016	10	8.0	19	1.0 U	1.0 U	2.2
		3/10/2017	3.4 J	2.5	6.3	1.0 U	1.0 U	1.3
		3/22/2017	4.8	4.1	10	1.0 U	1.0 U	1.3
SEEP-POST <sup>3</sup>	Post-remediation	3/30/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		6/21/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		10/31/2017	1.0 U	0.58	2.5	1.0 U	1.0 U	0.20 U
		1/8/2018 <sup>4</sup>	1.0 U	0.76	2.8	1.0 U	1.0 U	0.20 U
		3/30/2018	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
	Surface Water Clea	nup Level (µg/L)	3.3	30	NA	10,000	3.2	2.4

#### Notes:

BOLD Indicates a concentration that exceeds the site cleanup level.

1 Pre-remediation seep samples were collected approximately 16 feet south of the current seep sampling location. However, both pre- and post-remediation samples are representative of the same source of seep water.

2 Sample collected at the downstream catch basin. Pre-remediation sample was collected by the Washington State Department of Ecology from approximately the same location and named "Street - 2."

3 Sample collected downstream of the carbon filter sock to demonstrate treatment efficiency.

4 The filter socks were inaccessible for changeout due to parked cars during January 4, 2018, sampling; filter sock changeout was completed on January 8, 2018, and the downstream sample was collected after changeout.

### Abbreviations:

µg/L Micrograms per liter

NA Not applicable

#### Qualifiers:

J The analyte was detected; the concentration is considered to be an estimate.

U The analyte was not detected at the given reporting limit.

the same source of seep water. d "Street - 2."

Sample			Tetrachloroethene	Trichloroethene	cis -1,2-Dichloroethene	trans -1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride
Location	Status <sup>1</sup>	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
	Pre-remediation	8/13/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/12/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		6/9/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		9/29/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
10100-00	Post-remediation	12/20/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/10/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		10/31/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/30/2018	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
	Pre-remediation	8/13/2013	1.0 U	1.0 U	4.1	1.0 U	1.0 U	2.7
		3/12/2016	1.0 U	2.2	11	1.0 U	1.0 U	5.0
		6/9/2016	1.0 U	3.2	26	1.0 U	1.0 U	9.8
		9/29/2016	1.0 U	2.8	27	1.0 U	1.0 U	11
10100-09	Post-remediation	12/20/2016	1.0 U	0.69	10	1.0 U	1.0 U	6.9
		3/10/2017	1.0 U	0.61	6.2	1.0 U	1.0 U	2.6
		10/31/2017	1.0 U	1.7	12	1.0 U	1.0 U	6.0
		3/30/2018	1.0 U	2.1	6.2	1.0 U	1.0 U	0.20 U
	Pre-remediation	8/13/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/12/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		6/9/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
NAVA/ 11		9/29/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
	Post-remediation	12/20/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/10/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		10/31/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/30/2018	1.0 U	0.60	1.0 U	1.0 U	1.0 U	0.20 U
	Pre-remediation	8/13/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/12/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		6/9/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
N/N/_12		9/29/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
10100-12	Post-remediation	12/20/2016	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		3/10/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
		10/31/2017	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U
	Ē	3/30/3018	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.20 U

Table 2Groundwater Monitoring Data

			Groundwater Monitoring Data										
Sample Location	Status <sup>1</sup>	Date	Tetrachloroethene (μg/L)	Trichloroethene (μg/L)	<i>cis</i> -1,2-Dichloroethene (μg/L)	<i>trans</i> -1,2-Dichloroethene (μg/L)	1,1-Dichloro (μg/L						
	Pre-remediation	8/13/2013	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U						
		3/8/2016	52	17	23	1.0 U	1.0 U						
		6/9/2016 <sup>2</sup>	99	34	33	1.0 U	1.0 U						
NA1A/ 1A		9/29/2016	96	40	42	1.0 U	1.0 U						
10100-14	Post-remediation	12/20/2016 <sup>2</sup>	23	11	7.3	1.0 U	1.0 U						
		3/10/2017	38	24	14	1.0 U	1.0 U						
		10/31/2017	32	24	15	1.0 U	1.0 U						
		3/30/2018	1.2	2.0	2.2	1.0 U	1.0 U						
	Groundwater Clea	nup Level (μg/L)	5.0	5.0	16	100	7.0						

### Table 2 iroundwater Monitoring Dat

Notes:

**BOLD** Indicates a concentration that exceeds the site cleanup level.

1 Pre-remediation groundwater monitoring data collected by SoundEarth Strategies, Inc.

2 Field duplicate taken at this location on this date; the greatest concentration between the two samples is shown.

### Abbreviation:

µg/L Micrograms per liter

### Qualifier:

U The analyte was not detected at the given reporting limit.

bethene	Vinyl Chloride
.)	(µg/L)
J	0.20 U
J	2.4
J	2.8
J	0.20 U
J	0.79
J	0.20 U
J	2.2
J	0.20 U
	0.20

	Top of Casing		Depth to	Groundwater		
	Elevation		Water	Elevation		
Well ID	(feet) <sup>1,2</sup>	Date	(feet)	(feet) <sup>2</sup>		
		3/12/2016	1.46	18.66		
		6/9/2016	0.86	19.26		
		9/29/2016	0.20	19.92		
MW-06	20.12	12/20/2016	1.38	18.74		
		3/10/2017	0.65	19.47		
		10/31/2017	3.83	16.29		
		3/30/2018	1.62	18.5		
		3/12/2016	2.32	28.24		
		6/9/2016	3.41	27.15		
		9/29/2016	3.44	27.12		
MW-09	30.56	12/20/2016	3.40	27.16		
		3/10/2017	3.22	27.34		
		10/31/2017	3.34	27.22		
		3/30/2018	3.31	27.25		
		3/12/2016	0.00	24.66		
		6/9/2016	0.00	24.66		
		9/29/2016	0.00	24.66		
MW-11 <sup>3</sup>	24.66	12/20/2016	0.50	24.16		
		3/10/2017	0.38	24.28		
		10/31/2017	0.34	24.32		
		3/30/2018	0.39	24.27		
		3/12/2016	0.07	26.31		
		6/9/2016	0.17	26.21		
		9/29/2016	0.42	25.96		
MW-13	26.38	12/20/2016	0.20	26.18		
		3/10/2017	0.16	26.22		
		10/31/2017	1.33	25.05		
		3/30/2018	0.18	26.2		
		3/12/2016	0.00	26.00		
		6/9/2016	0.00	26.00		
		9/29/2016	0.00	26.00		
MW-14 <sup>3</sup>	26.00	12/20/2016	0.00	26.00		
		3/10/2017	0.00	26.00		
		10/31/2017	0.00	26.00		
		3/30/2018	0.00	26.00		

Table 3 Groundwater Elevation Data

Notes:

1 Top of well casing survey information from SoundEarth Strategies, Inc.

2 Elevations reported in North American Vertical Datum of 1988.

3 Depth to water values of 0.00 feet indicate a location with artesian

groundwater; reported groundwater elevations are considered estimates.

F:\projects\GTH\Olympia Dry Cleaners\2017 CM\Q1 Reporting\02 Tables Table 3 GW Elevations April 2018

Figures







Attachment 1 Laboratory Reports



# Libby Environmental, Inc. 4139 Libby Road NE • Olympia, WA 98506-2518

January 11, 2018

Steve Marshall GJG, LLC 8150 West Mercer Way Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaner Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

z I Um

Sherry L. Chilcutt Senior Chemist Libby Environmental, Inc.

Libby Environmental,	Inc.	Chai	in of C	ustody R	ecord	ł		www.LibbyEnvironmental.com			
4139 Libby Road NE Ph:	360-352-2110		28 A	1110	rid			1 . 1			
Olympia, WA 98506 Fax:	360-352-4154		Date	: 11412	510		Page:	t of /			
Client: GJG LLC			Proj	ect Manager:	Steve	- Marsh	al	,			
Address: 8150 west me	rer Way		Project Name: Former Olympia Dry Cleaner								
City: Mercer Island	State: WA Zip	: 98040	D40 Location: Olympia, WA City, State:								
Phone: (206) 399 - 898	7 <sub>Fax:</sub>		Colle	ector: G.B	urless	<i>n</i>	Date of	Collection: // 3/2018			
Client Project #			Ema	iil: Marsha	llsji	2 Comcas	stinet				
Sample Number Depth	Sample Time Type	Container Type	50 200 PH	5 82 PHHCO 5	+ 1.07 07 51 28 29 51 28 29	5 - 5 - 5 - 1 - 5 - 5 - 5 - 5 - 5 - 5 -	5 5 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Field Notes			
1 1 -	0855855 H20	1 VOA					$(\otimes)$	Ambois TBD			
2 2	905							EB			
3 3	915							EB			
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Relinquished by: Date	4135 PM	Received by: Twoday	Elez	Date	Time	Sample Good Condition?	Receipt	Remarks: All Isample			
Relinquished by: Date	/ Time	Received by:	V	Date	/ Time	Temp.	<u>°C</u>	-			
Relinquished by: Data	/ Time	Received by:		Date	/ Time	Seals Intact?	YN N/A				
	( into	littered by.		Date	TING	Containers	3	TAT: 24HR 48HR 5-DAY			

LEGAL ACTION CLAUSE: In the event of default of payment and/or failure to pay.	. Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a cout of law

Distribution: White - Lab, Yellow - File, Pin - Originator

# Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANER PROJECT GJG, LLC Olympia, Washington Libby Project # L180104-2 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

Sample Description		Method	1	1 Dup	RPD	
1 1		Blank		1		
Date Sampled		n/a	1/3/18	1/3/18		
Date Analyzed	PQL	1/5/18	1/5/18	1/5/18		
-	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
Vinyl Chloride (VC)	0.2	nd	7.6	6.6	14.1	
1,1-Dichlorothene	1.0	nd	nd	nd	N/A	
trans-1,2-Dichloroethene	1.0	nd	nd	nd	N/A	
cis-1,2-Dichloroethene	1.0	nd	138	124	10.7	
Trichloroethene (TCE)	0.5	nd	34	31	9.2	
Tetrachloroethene (PCE)	1.0	nd	20	18	10.5	
Surrogate Recovery						
Dibromofluoromethane		116	113	112		
1,2-Dichloroethane-d4		111	109	105		
Toluene-d8		99	99	100		
4-Bromofluorobenzene		103	107	101		
"nd" Indicates not detec	cted at listed	l detection lir	nit.			
"int" Indicates that inter	rference pre	vents determ	ination.			

### Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

### FORMER OLYMPIA DRY CLEANER PROJECT GJG, LLC Olympia, Washington Libby Project # L180104-2

Sample Identification: 1										
		Matrix Spike	e	М	atrix Spike D	up	RPD			
	Spiked	Measured	Spike	Spiked	Measured	Spike				
	Conc.	Conc.	Recovery	Conc.	Conc.	Recovery				
	(µg/L)	(µg/L)	(%)	(µg/L)	(µg/L)	(%)				
1,1-Dichloroethene	-Dichloroethene 10 7.1 71					74	4.1			
Chlorobenzene	10	10.3	103	10	10.3	103	0.0			
Trichloroethene (TCE)	10	7.0	70	10	7.0	70	0.0			
Surrogate Recovery										
Dibromofluoromethane			115			110				
1,2-Dichloroethane-d4			107			98				
Toluene-d8			99			100				
4-Bromofluorobenzene			101			100				

### QA/QC Data - EPA 8260C Analyses

	Laboratory	Control San	ple
	Spiked	Measured	Spike
	Conc.	Conc.	Recovery
	(µg/L)	(µg/L)	(%)
1,1-Dichloroethene	10	7.0	70
Chlorobenzene	10	10.0	100
Trichloroethene (TCE)	10	8.2	82
Surrogate Recovery			
Dibromofluoromethane			117
1,2-Dichloroethane-d4			110
Toluene-d8			100
4-Bromofluorobenzene			106
ACCEPTABLE RECO	OVFRY I IM	ITS FOR M	ATRIX SPIK

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

### ANALYSES PERFORMED BY: Paul Burke



# Libby Environmental, Inc. 4139 Libby Road NE • Olympia, WA 98506-2518

January 15, 2018

Steve Marshall GJG, LLC 8150 West Mercer Way Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaner Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

2 1 Um

Sherry L. Chilcutt Senior Chemist Libby Environmental, Inc.

Libby Environmental, Inc. Chain of			ı of	f Custody Record							www.LibbyE	nvironmental.co									
4139 Libby Road NE Olympia, WA 98506	Ph: Fax:	360-352-2 360-352-4	110 154				Date	:	1/	8	2	01	9				Page	э:		l of	l
Client: GJG LLC							Proje	ect Ma	anag	er:	54	eve	_ /	Ma	rsh	all	·				
Address: \$150 We	est n	lercer	- Way				Project Name: Former Olympia Dry Cleaners														
City: Mercer Islam	d	State: L	DA Zip	: 98040	2		Location: Olympia City, State: WA														
Phone: (206) 399-	-898	7 Fax:					Colle	ector:	4	5.	B	un	lesa	n			Date	of C	ollec	ction: 1/L	el 2018
Client Project #							Ema	il: 🖊	na	rsh	al	137	Q	Co	mc	as	<i>t</i> .	ne	et		
Sample Number	Depth	Time	Sample Type	Container Type	10	S 828	AR A	+ + + + + + + + + + + + + + + + + + +	HH IN	C. R.	+ 12 0	10 10 00 PM	10 10 55	Support Not	8 8082 8 8082	She She	100 00 00 00 00 00 00 00 00 00 00 00 00	and	a 83	Field N	lotes
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Relinquished by:	Date	/ Time		Received by:						Date	/ Time	Ð	Tota	I Numl	per of ers		?		ТА	T: 24HR	48HR 5-DA

# Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANER PROJECT GJG, LLC Olympia, Washington Libby Project # L180108-3 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

Sample Description		Method	2	
Sample Description		Method	2	
		Blank		
Date Sampled		n/a	1/6/18	
Date Analyzed	PQL	1/11/18	1/11/18	
	(µg/L)	(µg/L)	(µg/L)	
Vinyl Chloride (VC)	0.2	nd	nd	
1,1-Dichlorothene	1.0	nd	nd	
trans-1,2-Dichloroethene	1.0	nd	nd	
cis-1,2-Dichloroethene	1.0	nd	2.8	
Trichloroethene (TCE)	0.5	nd	0.76	
Tetrachloroethene (PCE)	1.0	nd	nd	
Surrogate Recovery				
Dibromofluoromethane		99	100	
1,2-Dichloroethane-d4		89	100	
Toluene-d8		96	97	
4-Bromofluorobenzene		93	96	
"nd" Indicates not detec	ted at listed	l detection lin	nit.	
"int" Indicates that inter	ference pre	vents determ	ination.	
ACCEPTABLE RECOV	/ERY LIM	ITS FOR SU	RROGATE	: 65% TO 135%

### Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

ANALYSES PERFORMED BY: Paul Burke

# Libby Environmental, Inc.

### FORMER OLYMPIA DRY CLEANER PROJECT GJG, LLC Olympia, Washington Libby Project # L180108-3

Sample Identification: L180110-3								
		Matrix Spike	e	Ma	atrix Spike D	up	RPD	
	Spiked	Measured	Spike	Spiked	Measured	Spike		
	Conc.	Conc.	Recovery	Conc.	Conc.	Recovery		
	(µg/L)	(µg/L)	(%)	(µg/L)	(µg/L)	(%)		
1,1-Dichloroethene	10	8.1	81	10	6.9	69	16.0	
Chlorobenzene	10	9.9	99	10	10.2	102	3.0	
Trichloroethene (TCE)	10	8.3	83	10	8.4	84	1.2	
Surrogate Recovery								
Dibromofluoromethane			99			102		
1,2-Dichloroethane-d4			92		93			
Toluene-d8			95		99			
4-Bromofluorobenzene			80		95			

### QA/QC Data - EPA 8260C Analyses

	Laboratory Control Sample							
	Spiked	Measured	Spike					
	Conc.	Conc.	Recovery					
	(µg/L)	(µg/L)	(%)					
1,1-Dichloroethene	10	7.8	78					
Chlorobenzene	10	10.0	100					
Trichloroethene (TCE)	10	8.2	82					
Surrogate Recovery								
Dibromofluoromethane			104					
1,2-Dichloroethane-d4			101					
Toluene-d8			98					
4-Bromofluorobenzene			98					

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

### ANALYSES PERFORMED BY: Paul Burke



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

**Floyd | Snider** Lynn Grochala 601 Union St., Suite 600 Seattle, WA 98101

### RE: GTH - Olympia Dry Cleaners Work Order Number: 1804003

April 09, 2018

### Attention Lynn Grochala:

Fremont Analytical, Inc. received 9 sample(s) on 3/30/2018 for the analyses presented in the following report.

### Volatile Organic Compounds by EPA Method 8260C

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,

VInlc. Rady

Mike Ridgeway Laboratory Director

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



CLIENT: Project: Work Order:	Floyd   Snider GTH - Olympia Dry Cleaners 1804003	Work Order Sample Summa					
Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received				
1804003-001	SEEP-CB-033018	03/30/2018 10:00 AM	03/30/2018 3:21 PM				
1804003-002	MW-06-033018	03/30/2018 10:10 AM	03/30/2018 3:21 PM				
1804003-003	MW-13-033018	03/30/2018 10:50 AM	03/30/2018 3:21 PM				
1804003-004	SEEP-033018	03/30/2018 11:10 AM	03/30/2018 3:21 PM				
1804003-005	MW-14-033018	03/30/2018 12:00 PM	03/30/2018 3:21 PM				
1804003-006	MW-11-033018	03/30/2018 12:36 PM	03/30/2018 3:21 PM				
1804003-007	MW-09-033018	03/30/2018 1:15 PM	03/30/2018 3:21 PM				
1804003-008	SEEP-POST-033018	03/30/2018 1:30 PM	03/30/2018 3:21 PM				
1804003-009	Trip Blank	03/26/2018 12:52 PM	03/30/2018 3:21 PM				



**Case Narrative** 

WO#: **1804003** Date: **4/9/2018** 

CLIENT:Floyd | SniderProject:GTH - Olympia Dry Cleaners

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 & Acronyms**



WO#: **1804003** Date Reported: **4/9/2018** 

### 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



Client: Floyd   Snider Collection Date: 3/30/2018 10:00:00						
Lab ID: 1804003-001	5			Matrix: W	ater	
Client Sample ID: SEEP-CB-033018						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EF	PA Method	<u>8260C</u>		Batch	n ID: 20	0259 Analyst: TN
Vinyl chloride	ND	0.200		µg/L	1	4/4/2018 3:50:05 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 3:50:05 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 3:50:05 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 3:50:05 PM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/4/2018 3:50:05 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/4/2018 3:50:05 PM
Surr: Dibromofluoromethane	87.9	45.4 - 152		%Rec	1	4/4/2018 3:50:05 PM
Surr: Toluene-d8	92.4	40.1 - 139		%Rec	1	4/4/2018 3:50:05 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2 - 128		%Rec	1	4/4/2018 3:50:05 PM



lient: Floyd   Snider Collection Date: 3/30/2018 10:10:00						
Lab ID: 1804003-002				Matrix: G	roundv	water
Client Sample ID: MW-06-033018						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EP	A Method	<u>8260C</u>		Batch	n ID: 2	0259 Analyst: TN
Vinyl chloride	ND	0.200		µg/L	1	4/4/2018 11:44:21 AM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 11:44:21 AM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 11:44:21 AM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 11:44:21 AM
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/4/2018 11:44:21 AM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/4/2018 11:44:21 AM
Surr: Dibromofluoromethane	94.0	45.4 - 152		%Rec	1	4/4/2018 11:44:21 AM
Surr: Toluene-d8	87.9	40.1 - 139		%Rec	1	4/4/2018 11:44:21 AM
Surr: 1-Bromo-4-fluorobenzene	99.5	64.2 - 128		%Rec	1	4/4/2018 11:44:21 AM



Client: Floyd   Snider Project: GTH - Olympia Dry Cleaners	Collection Date: 3/30/2018 10:50:00 AM						
Lab ID: 1804003-003				Matrix: G	roundv	water	
Client Sample ID: MW-13-033018							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	
Volatile Organic Compounds by EP	PA Method	<u>8260C</u>		Batch	n ID: 2	0259 Analyst: TN	
Vinyl chloride	ND	0.200		µg/L	1	4/4/2018 12:45:49 PM	
1,1-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 12:45:49 PM	
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 12:45:49 PM	
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 12:45:49 PM	
Trichloroethene (TCE)	ND	0.500		µg/L	1	4/4/2018 12:45:49 PM	
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/4/2018 12:45:49 PM	
Surr: Dibromofluoromethane	87.0	45.4 - 152		%Rec	1	4/4/2018 12:45:49 PM	
Surr: Toluene-d8	88.3	40.1 - 139		%Rec	1	4/4/2018 12:45:49 PM	
Surr: 1-Bromo-4-fluorobenzene	99.1	64.2 - 128		%Rec	1	4/4/2018 12:45:49 PM	



			Collectior	n Date: 3	3/30/2018 11:10:00 AM
			Motrix: 14	1-1-1	
				ater	
Result	RL	Qual	Units	DF	Date Analyzed
A Method	8260C		Batc	h ID: 20	259 Analyst: TN
1.92	0.200		µg/L	1	4/4/2018 4:21:00 PM
ND	1.00		µg/L	1	4/4/2018 4:21:00 PM
ND	1.00		µg/L	1	4/4/2018 4:21:00 PM
59.8	10.0	D	µg/L	10	4/6/2018 6:46:24 AM
15.9	0.500		µg/L	1	4/4/2018 4:21:00 PM
19.4	1.00		µg/L	1	4/4/2018 4:21:00 PM
92.5	45.4 - 152		%Rec	1	4/4/2018 4:21:00 PM
88.4	40.1 - 139		%Rec	1	4/4/2018 4:21:00 PM
104	64.2 - 128		%Rec	1	4/4/2018 4:21:00 PM
	Result <u>A Method</u> 1.92 ND 59.8 15.9 19.4 92.5 88.4 104	ResultRL1.920.200ND1.00ND1.0059.810.015.90.50019.41.0092.545.4 - 15288.440.1 - 13910464.2 - 128	Result         RL         Qual           A Method 8260C         1.92         0.200           ND         1.00           ND         1.00           59.8         10.0           15.9         0.500           19.4         1.00           92.5         45.4 - 152           88.4         40.1 - 139           104         64.2 - 128	Collection           Matrix:         Matrix:           Result         RL         Qual         Units           A Method 8260C         Batcl           1.92         0.200         µg/L           ND         1.00         µg/L           ND         1.00         µg/L           59.8         10.0         µg/L           15.9         0.500         µg/L           19.4         1.00         µg/L           92.5         45.4 - 152         %Rec           88.4         40.1 - 139         %Rec           104         64.2 - 128         %Rec	Collection Date:           Matrix: Water           Result         RL         Qual         Units         DF           A Method 8260C         Batch ID: 20         Pg/L         1           ND         1.00         Pg/L         1           ND         1.00         Pg/L         1           59.8         10.0         D         Pg/L         1           19.4         1.00         Pg/L         1           92.5         45.4 - 152         %Rec         1           88.4         40.1 - 139         %Rec         1           104         64.2 - 128         %Rec         1



Collection Date: 3/30/2018 12:00:00						3/30/2018 12:00:00 PM
Lab ID: 1804003-005	•			Matrix: G	roundw	vater
Client Sample ID: MW-14-033018						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260C</u>		Batch	n ID: 20	0259 Analyst: TN
Vinyl chloride	ND	0.200		µg/L	1	4/4/2018 3:19:22 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 3:19:22 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 3:19:22 PM
cis-1,2-Dichloroethene	2.15	1.00		µg/L	1	4/4/2018 3:19:22 PM
Trichloroethene (TCE)	1.96	0.500		µg/L	1	4/4/2018 3:19:22 PM
Tetrachloroethene (PCE)	1.19	1.00		µg/L	1	4/4/2018 3:19:22 PM
Surr: Dibromofluoromethane	95.3	45.4 - 152		%Rec	1	4/4/2018 3:19:22 PM
Surr: Toluene-d8	89.2	40.1 - 139		%Rec	1	4/4/2018 3:19:22 PM
Surr: 1-Bromo-4-fluorobenzene	102	64.2 - 128		%Rec	1	4/4/2018 3:19:22 PM



Client: Floyd   Snider Project: GTH - Olympia Dry Cleaners	i			Collection	Date	: 3/30/2018 12:36:00 PM
Lab ID: 1804003-006				Matrix: G	round	water
Client Sample ID: MW-11-033018						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EP	A Method	<u>8260C</u>		Batch	n ID: 2	0259 Analyst: TN
Vinyl chloride	ND	0.200		µg/L	1	4/9/2018 3:41:30 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/9/2018 3:41:30 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/9/2018 3:41:30 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	4/9/2018 3:41:30 PM
Trichloroethene (TCE)	0.603	0.500		µg/L	1	4/9/2018 3:41:30 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/9/2018 3:41:30 PM
Surr: Dibromofluoromethane	107	45.4 - 152		%Rec	1	4/9/2018 3:41:30 PM
Surr: Toluene-d8	97.3	40.1 - 139		%Rec	1	4/9/2018 3:41:30 PM
Surr: 1-Bromo-4-fluorobenzene	97.1	64.2 - 128		%Rec	1	4/9/2018 3:41:30 PM



lient:       Floyd   Snider       Collection Date: 3/30/2018 1:15:00 P         roject:       GTH - Olympia Dry Cleaners						
Lab ID: 1804003-007	•			Matrix: G	roundv	vater
Client Sample ID: MW-09-033018						
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by E	PA Method	<u>8260C</u>		Batcl	n ID: 20	0259 Analyst: TN
Vinyl chloride	ND	0.200		µg/L	1	4/4/2018 2:17:54 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 2:17:54 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	4/4/2018 2:17:54 PM
cis-1,2-Dichloroethene	6.18	1.00		µg/L	1	4/4/2018 2:17:54 PM
Trichloroethene (TCE)	2.08	0.500		µg/L	1	4/4/2018 2:17:54 PM
Tetrachloroethene (PCE)	ND	1.00		µg/L	1	4/4/2018 2:17:54 PM
Surr: Dibromofluoromethane	92.2	45.4 - 152		%Rec	1	4/4/2018 2:17:54 PM
Surr: Toluene-d8	89.7	40.1 - 139		%Rec	1	4/4/2018 2:17:54 PM
Surr: 1-Bromo-4-fluorobenzene	103	64.2 - 128		%Rec	1	4/4/2018 2:17:54 PM



			Collection	n Date:	3/30/2018 1:30:00 PM
ners					
			Matrix: W	/ater	
33018					
Result	RL	Qual	Units	DF	Date Analyzed
v EPA Method	<u>8260C</u>		Batc	h ID: 20	259 Analyst: TN
ND	0.200		µg/L	1	4/4/2018 2:48:42 PM
ND	1.00		µg/L	1	4/4/2018 2:48:42 PM
ND	1.00		µg/L	1	4/4/2018 2:48:42 PM
ND	1.00		µg/L	1	4/4/2018 2:48:42 PM
ND	0.500		µg/L	1	4/4/2018 2:48:42 PM
ND	1.00		µg/L	1	4/4/2018 2:48:42 PM
83.2	45.4 - 152		%Rec	1	4/4/2018 2:48:42 PM
91.0	40.1 - 139		%Rec	1	4/4/2018 2:48:42 PM
99.4	64.2 - 128		%Rec	1	4/4/2018 2:48:42 PM
	ners 33018 <u>Result</u> <u>/ EPA Method</u> ND ND ND ND ND ND ND ND ND ND 99.4	ND       0.200         ND       1.00         91.0       40.1 - 139         99.4       64.2 - 128	ND       0.200         ND       1.00         91.0       40.1 - 139         99.4       64.2 - 128	ND         0.200         µg/L           ND         1.00         µg/L           83.2         45.4 - 152         %Rec           91.0         40.1 - 139         %Rec           99.4         64.2 - 128         %Rec	Collection Date:           Matrix: Water           33018           Result         RL         Qual         Units         DF           ZEPA Method 8260C         Batch ID: 20           ND         0.200         µg/L         1           ND         1.00         µg/L         1           91.0         40.1 - 139         %Rec         1           99.4         64.2 - 128         %Rec         1

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[Analytical]

### QC SUMMARY REPORT

**Project:** GTH - Olympia Dry Cleaners

Floyd | Snider

1804003

Work Order:

CLIENT:

### Volatile Organic Compounds by EPA Method 8260C

	Ja Dry Oleanors							
Sample ID LCS-20259	SampType: LCS			Units: µg/L		Prep Dat	ie: 4/3/2018	RunNo: <b>42672</b>
Client ID: LCSW	Batch ID: 20259					Analysis Dat	te: 4/3/2018	SeqNo: 824072
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Qual
Vinyl chloride	20.6	0.200	20.00	0	103	48	145	
1,1-Dichloroethene	19.0	1.00	20.00	0	95.1	57.5	150	
trans-1,2-Dichloroethene	19.0	1.00	20.00	0	94.8	71.7	129	
cis-1,2-Dichloroethene	18.4	1.00	20.00	0	92.0	70.2	139	
Trichloroethene (TCE)	18.8	0.500	20.00	0	93.8	65.2	136	
Tetrachloroethene (PCE)	20.1	1.00	20.00	0	101	47.5	147	
Surr: Dibromofluoromethane	25.1		25.00		100	45.4	152	
Surr: Toluene-d8	23.2		25.00		92.6	40.1	139	
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128	
Sample ID MB-20259	SampType: <b>MBLK</b>			Units: µg/L		Prep Dat	te: <b>4/3/2018</b>	RunNo: <b>42672</b>
Client ID: MBLKW	Batch ID: 20259					Analysis Dat	te: 4/3/2018	SeqNo: 824073
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Qual
Vinyl chloride	ND	0.200						
1,1-Dichloroethene	ND	1.00						
trans-1,2-Dichloroethene	ND	1.00						
cis-1,2-Dichloroethene	ND	1.00						
Trichloroethene (TCE)	ND	0.500						
Tetrachloroethene (PCE)	ND	1.00						
Surr: Dibromofluoromethane	23.5		25.00		94.0	45.4	152	
Surr: Toluene-d8	22.8		25.00		91.3	40.1	139	
Surr: 1-Bromo-4-fluorobenzene	25.7		25.00		103	64.2	128	
Sample ID 1804021-002ADUP	SampType: <b>DUP</b>			Units: µg/L		Prep Dat	te: <b>4/3/2018</b>	RunNo: <b>42672</b>
Client ID: BATCH	Batch ID: 20259					Analysis Dat	te: 4/3/2018	SeqNo: <b>824067</b>

Analyte	Result	RL	SPK value SPK Ref Val	%REC	LowLimit Hig	ghLimit RPD Ref Val	%RPD RPDLimi	t Qual
Vinyl chloride	ND	0.200				0	3	0
1,1-Dichloroethene	ND	1.00				0	3	D
							P	10 11

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[Analytical]

Work Order: 1804003								2.00	SUMMAR		PORT
CLIENT: Floyd   Snide	er							401			
Project: GTH - Olym	pia Dry Cleaners					Volatile	Organic	c Compour	nds by EPA	A Method	182600
Sample ID 1804021-002ADUP	SampType: <b>DUP</b>			Units: µg/L		Prep Date:	: 4/3/201	8	RunNo: 426	672	
Client ID: BATCH	Batch ID: 20259					Analysis Date	: 4/3/201	8	SeqNo: 824	1067	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	1.00						0		30	-
cis-1,2-Dichloroethene	ND	1.00						0		30	
Trichloroethene (TCE)	ND	0.500						0		30	
Tetrachloroethene (PCE)	ND	1.00						0		30	
Surr: Dibromofluoromethane	23.6		25.00		94.6	45.4	152		0		
Surr: Toluene-d8	23.0		25.00		92.1	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.0		25.00		100	64.2	128		0		
Sample ID 1803397-004AMS	SampType: <b>MS</b>			Units: µg/L		Prep Date:	: 4/3/201	8	RunNo: 426	572	
Client ID: BATCH	Batch ID: 20259					Analysis Date	: 4/4/201	8	SeqNo: 824	1049	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	23.4	0.200	20.00	0	117	41	165				
1,1-Dichloroethene	21.6	1.00	20.00	0	108	51.6	164				
trans-1,2-Dichloroethene	20.5	1.00	20.00	0	103	63.5	138				
cis-1,2-Dichloroethene	19.4	1.00	20.00	0	96.8	60	154				
Trichloroethene (TCE)	20.1	0.500	20.00	0	100	60.4	134				
Tetrachloroethene (PCE)	22.1	1.00	20.00	0	110	50.3	133				
Surr: Dibromofluoromethane	25.0		25.00		100	45.4	152				
Surr: Toluene-d8	23.1		25.00		92.2	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	25.4		25.00		102	64.2	128				
Sample ID 1803397-004AMSD	SampType: MSD			Units: µg/L		Prep Date:	: 4/3/201	8	RunNo: 426	672	
Client ID: BATCH	Batch ID: 20259					Analysis Date	: 4/4/201	8	SeqNo: 824	1050	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	24.8	0.200	20.00	0	124	41	165	23.42	5.84	30	
1,1-Dichloroethene	22.3	1.00	20.00	0	111	51.6	164	21.58	3.21	30	
trans-1,2-Dichloroethene	21.5	1.00	20.00	0	108	63.5	138	20.52	4.73	30	
cis-1,2-Dichloroethene	20.4	1.00	20.00	0	102	60	154	19.36	5.44	30	

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[Analytical]

Work Order: CLIENT: Project:	1804003 Floyd   Snide GTH - Olymp	er oia Dry Cle	aners					Volatile	Organic	QC S Compour	SUMMAI	RY REF A Method	PORT 8260C
Sample ID 18033	97-004AMSD	SampType	: MSD			Units: µg/L		Prep Date	e: <b>4/3/201</b>	8	RunNo: 42	672	
Client ID: BATC	н	Batch ID:	20259					Analysis Date	e: <b>4/4/201</b>	8	SeqNo: 824	4050	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (T	CE)		21.5	0.500	20.00	0	108	60.4	134	20.06	6.96	30	
Tetrachloroethene	(PCE)		23.2	1.00	20.00	0	116	50.3	133	22.10	4.81	30	
Surr: Dibromoflu	uoromethane		25.3		25.00		101	45.4	152		0		
Surr: Toluene-d	8		23.3		25.00		93.4	40.1	139		0		
Surr: 1-Bromo-4	-fluorobenzene		25.4		25.00		102	64.2	128		0		
Sample ID 18040	03-002ADUP	SampType	: DUP			Units: µg/L		Prep Date	e: <b>4/3/201</b>	8	RunNo: 42	672	
Client ID: MW-0	6-033018	Batch ID:	20259					Analysis Date	e: <b>4/4/201</b>	8	SeqNo: 824	4058	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride			ND	0.200						0		30	
1,1-Dichloroethene	9		ND	1.00						0		30	
trans-1,2-Dichloroe	ethene		ND	1.00						0		30	
cis-1,2-Dichloroeth	iene		ND	1.00						0		30	
Trichloroethene (T	CE)		ND	0.500						0		30	
Tetrachloroethene	(PCE)		ND	1.00						0		30	
Surr: Dibromoflu	uoromethane		23.4		25.00		93.7	45.4	152		0		
Surr: Toluene-d	8		22.0		25.00		88.1	40.1	139		0		
Surr: 1-Bromo-4	-fluorobenzene		25.0		25.00		100	64.2	128		0		
Sample ID CCV-2	20259A	SampType	: CCV			Units: µg/L		Prep Date	e: <b>4/6/201</b>	8	RunNo: 42	705	
Client ID: CCV		Batch ID:	20259					Analysis Date	e: <b>4/6/201</b>	8	SeqNo: 824	4970	
Analyte		I	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroeth	iene		18.6	1.00	20.00	0	93.2	80	120				
Surr: Dibromoflu	uoromethane		26.1		25.00		104	72.1	122				
Surr: Toluene-da	8		25.8		25.00		103	62.1	129				
Surr: 1-Bromo-4	-fluorobenzene		25.5		25.00		102	63.3	132				



### Work Order: 1804003

CLIENT: Floyd | Snider

Project:

GTH - Olympia Dry Cleaners

### QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260C

Sample ID CCV-20259A	SampType: CCV			Units: µg/L		Prep Dat	te: 4/9/2018	3	RunNo: 42	760	
Client ID: CCV	Batch ID: 20259					Analysis Da	te: 4/9/2018	3	SeqNo: 82	6092	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	21.5	0.200	20.00	0	107	80	120				
1,1-Dichloroethene	19.1	1.00	20.00	0	95.7	80	120				
trans-1,2-Dichloroethene	18.3	1.00	20.00	0	91.3	80	120				
cis-1,2-Dichloroethene	17.8	1.00	20.00	0	88.8	80	120				
Trichloroethene (TCE)	18.4	0.500	20.00	0	91.8	80	120				
Tetrachloroethene (PCE)	18.6	1.00	20.00	0	92.8	80	120				
Surr: Dibromofluoromethane	25.6		25.00		103	72.1	122				
Surr: Toluene-d8	24.9		25.00		99.7	62.1	129				
Surr: 1-Bromo-4-fluorobenzene	25.2		25.00		101	63.3	132				



С	ient Name:	FS	Work Order Numb	per: 1804003	
Lo	ogged by:	Brianna Barnes	Date Received:	3/30/2018	3:21:00 PM
Cha	in of Cust	ody			
1.	Is Chain of C	ustody complete?	Yes 🖌	No 🗌	Not Present
2.	How was the	sample delivered?	<u>Client</u>		
Loa	In				
3.	Coolers are p	present?	Yes 🗸	No 🗌	NA 🗌
4.	Shipping con	tainer/cooler in good condition?	Yes 🗹	No 🗀	
5.	Custody Seal (Refer to com	Is present on shipping container/cooler? ments for Custody Seals not intact)	Yes 🗔	No 🗀	Not Required ⊻
6.	Was an atten	npt made to cool the samples?	Yes 🖌	No 🗌	NA 🗌
7.	Were all item	s received at a temperature of >0°C to 10.0°C*	Yes	No 🗹	NA 🗌
		Samples rec	ceived at appropria	te temperatur	re.
8.	Sample(s) in	proper container(s)?	Yes 🗹	No 🗌	
9.	Sufficient sar	nple volume for indicated test(s)?	Yes 🗹	No 🗌	
10.	Are samples	properly preserved?	Yes 🗹	No 🗌	
11.	Was preserva	ative added to bottles?	Yes	No 🔽	NA 🗌
12.	Is there head	space in the VOA vials?	Yes	No 🔽	
13.	Did all sample	es containers arrive in good condition(unbroken)?	Yes 🖌	No 🗌	
14.	Does paperw	ork match bottle labels?	Yes 🗹	No 🗌	
15.	Are matrices	correctly identified on Chain of Custody?	Yes 🗸	No 🗌	
16.	Is it clear what	at analyses were requested?	Yes 🗹	No 🗌	
17.	Were all hold	ling times able to be met?	Yes 🗹	No 🗌	
<u>Spe</u>	cial Handli	ing (if applicable)			
18.	Was client no	otified of all discrepancies with this order?	Yes	No 🗌	NA 🔽
	Person	Notified: Date			
	By Who	m: Via:	🗌 eMail 🗌 Ph	one 🗌 Fax	In Person
	Regardi	ng:			
	Client In	nstructions:			
19.	Additional rer	narks:			

### Item Information

Item #	Temp ⁰C
Cooler	8.1
Sample	9.6
Temp Blank	11.4

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

Minimum     Setting for minimum	3600 Fremon	taven. Chain of Custody Record & Lab	oratory Corvicos Agroomont
Image: Second State     Image: Second St	Fremond Seattle, W/ Tel: 206-3	1 98103 52-3790 Date: 3/30/10 Page: 1 of: 1	Laboratory Project No (internal): 18004007
Interme     Long     Statut     CCC     Generative P. OSCHDuct     Through P. 2. chub Acceluru, cord     Through P. 2. chub Acceluru, cord <td>cient: Floud Snider</td> <td>Project Name: UTH-OLYMPIA DIY URANAS</td> <td>- CNOCS: PCE, TCE, CIS-1,2 dichemeterno</td>	cient: Floud Snider	Project Name: UTH-OLYMPIA DIY URANAS	- CNOCS: PCE, TCE, CIS-1,2 dichemeterno
answer     Scattlet_UP     TPEID     users Dupper, UP     way     dupper, UP       ser     server term     bann     transform     transform     transform       server     server term     bann     transform     transform     transform       server     transform     transform     transform <td< td=""><td>Address 601 UMIDIN St. Suite 600</td><td>collected by: P. OSTEYNOUT</td><td>- Tierro-1,2-authorethere</td></td<>	Address 601 UMIDIN St. Suite 600	collected by: P. OSTEYNOUT	- Tierro-1,2-authorethere
Importe     Rest To PRIA     Import PriA     Series Concerning     Seri	city, state, ZIP: Seattle, WA 98101	Location: Olympia, WA	uny chiorde
Image:         Image: <thimage:< th=""> <thimage:< th=""> <thimage:< td="" th<=""><td>Telephone: 2010-292-2078</td><td>REPORT TO (PM): Lynn Gradiala</td><td>Sample Disposal: CRETURN to client Disposal by lab (after 30 days)</td></thimage:<></thimage:<></thimage:<>	Telephone: 2010-292-2078	REPORT TO (PM): Lynn Gradiala	Sample Disposal: CRETURN to client Disposal by lab (after 30 days)
Sample Name       Sample       Sample </td <td>Fax:</td> <td>PMEmail: Lynn. Grachala @ FloydSnider.col</td> <td>3</td>	Fax:	PMEmail: Lynn. Grachala @ FloydSnider.col	3
sample Name     Sample     Samp		(1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	
1/2/EP-C8-b33018     1010     600     1010     600     1010     600       1/2/LINE     100     600     600     1010     101     101     101     101     101       1/2/LINE     100     600     600     100     600     101	Sample Name Sample Time	Type (3) (3) (3) (3) (3) (3) (3) (3) (3) (3)	
2 MWU-Clor-633018     1010     (W)     1010     (W)     1010     (W)       3 MWU-13-633018     1050     (W)     W     1010     (W)     (W)       4 SEEP-033018     1200     (W)     W     1010     (W)     (W)       5 MWU-14-033018     1230     (W)     1010     (W)     (W)     (W)       6 MWU-11-033018     1230     (W)     (W)     (W)     (W)     (W)       6 MWU-11-033018     1330     (W)     (W)     (W)     (W)     (W)       6 MWU-11-033018     1330     (W)     (W)     (W)     (W)     (W)     (W)       6 MWU-10-033018     1330     (W)     (W)     (W)     (W)     (W)     (W)     (W)       9 MUU-20-033018     1330     (W)     (W)     (W)     (W)     (W)     (W)     (W)     (W)     (W)       9 MUU-20-033018     1330     (W)	SEEP-08-63302 3/30/8 1000	X	comments
SMW - 13 - 03301 B     100     W     I     I       SEEP - 03301 B     100     W     I     I     I       SMW - H - 03301 B     120     W     I     I     I       SMW - H - 03301 B     120     W     I     I     I       SMW - IN - 03301 B     120     W     I     I     I     I       SMW - IN - 03301 B     120     W     I     I     I     I       SEEP - R051 - 03301 B     130     W     I     I     I     I       Multic A SM, All-Advances, B-able, O -Other, F - Foduct, S-soll, S-sold, W - Water, DV - binking Water, GV - Grand Water, SW - Stam Water, Wu - Water Water Water, W - Stam Water, Wu - Water Wa	2 MW-06-633018 1 1010	Gao X	
ASEEP-033018     INO     W       aMW-H-033018     1200     QU     1	3MW-13-033018 1050	(da) X	
SMW - H - 03.3018     1200     CW     I     I     I       a     AW - II - 03.3018     1315     GW     I     I     I       a     AW - II - 03.3018     1315     GW     I     I     I       a     AW - II - 03.3018     1315     GW     I     I     I       a     AW - II - 03.3018     1315     GW     I     I     I       a     AW - II - 03.3018     1320     W     I     I     I     I       a     B     III - 03.3018     1320     W     I     I     I     I       a     D     III - 03.3018     VIII - 03.3018     VIIII - 03.3018     VIIIII - 03.3018     I     I     IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ASEEP-033018 1110	3	
e M.WII     - 035010     1315     G.W.       n.M.W09 -033018     1315     G.W.     1315     G.W.       a     a     a     a     b     a       a     a     a     a     a     a       a     a     a     a     a     a       a     a     a     a     a     a       a     a     a     a     a     a       a     a     a     a     a     a       a     a     a     a     a     a     a       a     a     a     a     a     a     a       a     a     a     a     a     a     a       a     a     a     a     a     a     a       a     a     a     a     a     a     a       a     a     balk     balk     balk     balk     balk     a       a     balk     balk     balk     balk     balk     balk     balk       a     balk     balk     balk     balk     balk     balk     balk       a     balk     balk     balk     balk     balk     balk <t< td=""><td>5MW-H-033018 (200</td><td>(w)</td><td></td></t<>	5MW-H-033018 (200	(w)	
This     Contract     Contract<	MW-11-033018 1236	GW X	Textra Violemo
SEEP F05T-053.01B       V       1330       W       I       I       I         10 </td <td>-MW-09-033018 1315</td> <td>GWX</td> <td></td>	-MW-09-033018 1315	GWX	
9     10     11     11     11     11     11     11       Matrix: A = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Soild, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water     Turn-cround Time:       **Metais (Circle): MrCA-S     RCRA-8     Priority Pollutants     TA     Individual: Ag Al As B Ba Ec G Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Ti U V Zn     X Standard       Trepresent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the Agreement.     Date/Time     I a Jap/1/9     3 and a Jap/1/9       Leinquished     Date/Time     Neceived     Neceived     J active     I and Client's agreement to bate/Time     I a ceived     Neceived     Necei	SEEP-POST-033018 V 1330	3	The second se
ID     <	9		
••Metals (Circle):       MTCA-S       RCRA-8       Priority Pollutants       TAL       Individual:       Ag       As       B       B       Call       Control       Control       Control       Control       Mitrate       Numerication       Control       Standard       Mitrate       Numerication       Standard       Standard       Standard         ••••Anions (Circle):       Nitrate       Nitrate       Nitrate       Standard       Introduction       Standard       Standard       Standard       Standard       Standard       Standard       Introduction       Introduction       Standard       Introduction       Standard       Introduction       Introduction       Standard       Introduction       Standard       Introduction       Introduction       Introduction       Introduction       Introduction       Standard       Introduction       Introduction       Introduction       Introduction       Introduction       Introduction       Introduction	10	oil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Woter, Stu - s	Annual
***Anions (Circle): Nitrate       Nitrate       Consider the sufface       Standard         I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to       I a Day         each of the perms on the front and backside of this Agreement.       Date/Time       I a Day         relinquished       Date/Time       1521       Received       Date/Time       I a Day         leinquished       Date/Time       1521       x       Received       Date/Time       I a Day         leinquished       Date/Time       1521       x       Multical and the second       Date/Time       I a Day         leinquished       Date/Time       1521       x       Received       Date/Time       I a Day         leinquished       Date/Time       1521       x       Date/Time       Date/Time       I a Day         leinquished       Date/Time       1521       x       Date/Time       Date/Time       I a Day         leinquished       Date/Time       152       Same Day       Same Day       Same Day       Same Day       Same Day       Same Day       Sate/Time       Sate/Time       Sate/Time       Sate/Time       Sate/Time       Sate/Time       Sate/Time       Sate/Time       Sat	**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL	Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb	Se Sr Sn Ti Ti U V Zn
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement. elinquished Date/Time 1521 Received Date/Time 1521 Next Day elinquished Date/Time 1521 X Precived Next Date/Time 1521 Next Day elinquished Next Date/Time 1521 X Precived Next Date/Time 1521 Next Date/Time	***Anions (Circle): Nitrate Nitrite Chloride Sulfate	Bromide O-Phosphate Fluoride Nitrate+Nitrite	Standard
telinquishd     Date/Time     2 Day       Date/Time     Same Date/Time     2 Day       Date/Time     1521     Received     Date/Time     2 Day       Date/Time     Date/Time     1521     Next Day       Date/Time     Date/Time     2 Day       Date/Time     Date/Time     2 Day       Date/Time     Same Day       Next Day       Same Day	I represent that I am authorized to enter into this Agreem each of the terms on the front and backside of this Agreen	ent with Fremont Analytical on behalf of the Client named above and that I han a set that I have a set of the	ave verified Client's agreement to
oc 1.2 - 2.22.17 www.fremontanalytical.com	iclinquistra	521 × Phan And Date/Time	30/18 1521 D Next Day
oc 12 - 222 17 www.fremontanalytical.com	reiniguisned C Date/Illme	Received Date/Time	Same Day
	OC 1.2 - 2.22.17	www.fremontanalytical.com	(Allyade)

Page 1 of 2

Attachment 2 Groundwater Sample Collection Field Forms

	Date of Collection: 2/20/2019
Project Number: T-9	Field Personnel: D och down
Purge Data	F. Osterrjou (
Well ID: MW- Ø Secure: WYes D No	Well Condition/Damage Description:
Depth Sounder decontaminated Prior to Placement in Well: X Yes IN	One Casing Volume (cal)
Depth of water (from top of well casing): $1 \cdot (g 2)^{\prime}$	Well Casing Type/Diameter/Screened Internat: 3/4 inch 10-20!
After 5 minutes of purging (from top of casing): _? Can't measure	Volume of Schedule 40 PVC Pine
Begin purge (time): 0938	Diameter O.D. I.D. (Call inear Et ) (I bell ineal Et )
End purge (time):	1 ½" 1.660" 1.380" 0.08 0.64 2" 2.375" 2.057" 0.17
Gallons purged: 0.75, gal	- 2 2.067 2.067 0.17 1.45 3" 3.500" 3.068" 0.38 3.2
Purge water disposal method: Infiltrate on Site	- 4 4.500° 4.026° 0.66 5.51 6° 6.625° 6.065° 1.5 12.5
Time Depth to Vol. pH DO	Conductivity MS Turbidity Temp C ORP MU Comments
$\frac{0148}{0952} - \frac{014}{100} \frac{0.74}{0.74}$	0.265 19.5 12.10 23
0.123 - 1.00 - 10.60 - 0.79 - 0.79	0.305 - 42.5 - 12.01 - 19
1003 - 2.25 6.58 0.16	0.432 569 12.11 -103
1008 2.00 659 0.37	0.454 58.8 12.22 -76
Sampling Data	
Sample No: MW-04-033018	Location and Depth:
Date Collected (mo/dy/yr): 3/30/18 Time Collected:	1010 EAM DPM Weather Docthy cloudy
Type: K Ground Water Surface Water Other:	
Sample Collected with: Bailer Pump Other:	Type: Dericta Hic
Water Quality Instrument Data Collected with; Type: Theriba 11-22 of Hor	that 1.50 Other
Sample Decon Procedure: Sample collected with (circle and the	
Sample Description of the sample collected with (circle one): decontamini,	ated all tubing; disposable and/or dedicated silicon and poly tubing. Other:
Sample Description (Color, Turbidity, Odor, Other): No of br, Si	ghtly turkid, clear (purge water has mild \$25 adur
Sample Analyses	
TPH-D (HCI) Chlor / Fluor (unpres) COD /	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3)
TPH-D (HCI) Chlor / Fluor (unpres) COD / TPH-G (HCI) BTEX (HCI) Total M	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) letals (HNO3) TKN/Phos (N2SO4) VOCs (HCI)
TPH-D (HCI) Chlor / Fluor (unpres) COD / TPH-G (HCI) BTEX (HCI) Total M	TOC (H2SO4) Conthophos (FILTER) Diss. Metals (HNO3) Letals (HNO3) TKN/Phos (N2SO4) VOCs (HCI)
TPH-D       (HCl)       Chlor / Fluor       (unpres)       COD /         TPH-G       (HCl)       BTEX       (HCl)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) Letals (HNO3) TKN/Phos (N2SO4) VOCs (HCI)
TPH-D       (HCI)       Chlor (Fluor       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N         4D mL       VOA w       HCI       3	TOC       (H2SO4)       Orthophos       (FILTER)       Diss. Metals       (HNO3)       Image: Metals         Metals       (HNO3)       TKN/Phos       (N2SO4)       VOCs       (HCI)       Image: Metals         Jumbers:       Comments:       Comments:       Image: Metals       Image: Metals       Metals       Image: Metals
TPH-D       (HCI)       Chlor / Fluor       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N         40 mL VOA w       HCI       3       None	TOC       (H2SO4)       Orthophos       (FILTER)       Diss. Metals       (HNO3)       I         letals       (HNO3)       TKN/Phos       (N2SO4)       VOCs       (HCI)       I         lumbers:       Comments:       VOCs       U       VOCs       U       I         Jumbers:       Well       Davely       Productive.       I       I       I         Tubing       Set       of       VOCtom       I       V       I       I       I
TPH-D       (HCI)       Chlor (Fluor. (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N         40 mL       VOA       HCI       3       None	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) tetals (HNO3) TKN/Phos (N2SO4) VOCs (HCI) Jumbers: Comments: Well barely productive. Tubing set of bottom of well to be able to purge.
TPH-D       (HCI)       Chlor / Fluor       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N         4D mL VOA w       HCI       3       None	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) Dist. Metals (HNO3) TKN/Phos (N2SO4) VOCs (HCI) Dist. Metals (HNO3) Dist. M
TPH-D       (HCI)       Chlor (Fluor.       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information       Types of Sample Containers:       Quantity:       Duplicate Sample N $4OmL VOA w$ HCI       3       None	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) tetals (HNO3) TKN/Phos (N2SO4) VOCs (HCI) vumbers: Comments: Well barely productive. Tubing set at bottom of well to be able to purge.
TPH-D       (HCI)       Chlor (Fluor       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information         Types of Sample Containers:       Quantity:       Duplicate Sample N         4D mL       VOA       HCI       3       None	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) Diss. Metals (HNO3) TKN/Phos (N2SO4) VOCs (HCI) Diss. Metals (HNO3) Diss. M
TPH-D       (HCI)       Chlor / Fluor.       (unpres)       COD /         TPH-G       (HCI)       BTEX       (HCI)       Total M         Additional Information       Types of Sample Containers:       Quantity:       Duplicate Sample N $4OmL VOA w$ HCI       3       None	TOC (H2SO4) Orthophos (FILTER) Diss. Metals (HNO3) Metals (HNO3) TKN/Phos (N2SO4) VOCs (HCI) Numbers: Comments: Well barely productive. Tubing set of bottom of well to be able to purge.

Drained Number TA	Date of Colle	ection: 🔮	30/2	018		
Project Number:	Field Pers	onnel: 🖡	2. Oste	rhout		
Purge Data	<i>N</i> 1					
Well ID: <u>MW-09</u> Secure: <b>G</b> Yes INo	Well Condition/Dat	mage Descri	iption:	bod		
Depth Sounder decontaminated Prior to Placement in Well: Ves DNo	One Casing Volum	ne (gal):				
Depth of water (from top of well casing): 331	Well Casing Type/	Diameter/Sc	reened Inte	rval: 2" PV	10,3-10'	_
After 5 minutes of purging (from top of casing): 3.37	_	Volum	e of Sch	edule 40 PVC	Pipe	
Begin purge (time): 12:51	Diameter	0.D.	I.D.	Volume (Gal/Linear Et.)	Weight of Wat	er
End purge (time): 1310	1 1/2"	1.660"	1.380"	0.08	0.64	1
Gallons purged:	3"	3.500"	3.068"	0.38	1.45 3.2	
Purge water disposal method: infiltrate on site	6"	6.625*	6.065*	0.66	5.51 12.5	
Time Depth to Vol. pH DOM9 Water Purged	Conductivity MS	Turbidit	у т	emp 🖒 ORP	∾wv Comn	nents
1301 340' 0.5L 7.33 1.86	0.232	22.2	12	-77 -75	<u> </u>	
1306 3.41' 1.751 7.27 AU	0.234	4.7	12	92 -82	2	
1311 3.42' 2.25L J.38 0.00	0.234	2.6	_ 12	91 -9:	2	
	0.240	2.0	_ 12	.00 -99	2	
						11110
		d <del>e star estado</del>				
ampling Data		and the second se				-
	<ul> <li>Construction of the second seco</li></ul>					-
Date Collected (mo/dy/yr): 3/30/18 Time Collected: 1	Location and Dep	pth:	Weather:	partly cl	loudy	
Date Collected (mo/dy/yr): 3/30/18 Time Collected: 1	Location and Dep <u>315</u> AM Sample	pth: ph. PM le: D Filtered	Weather:	Partly cl	loudy	
Date Collected (mo/dy/yr): 3/30/18 Time Collected: 1	Location and Dej 315 D AM Sample Type: Perc	pth: PM le: D Filtered Istath	Weather:	partly cl ered Other:	loudy	
Date Collected (mo/dy/yr): 3/30/18 Time Collected: 1	Location and Deg 315 AM AM Sample Sample Sample a U-50 Other:	pth: PM e: D Filtered Istath	Weather:	partly cl ared Other:	loudy	
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water       Other:	Location and Deg 315  AM Sample Type: Per a U-50 Other: ed <u>all</u> tubing; disposa	pth: PM e: D Filterec CCALL	Weather:	partly cl ared Other:	Other:	
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315 AM Sample Type: Per a U-50 Other: ed <u>all</u> tubing; disposa	pth: PM : Filterec : Filterec : filterec	Weather:	partly cl ared Other:	Other:	
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315 AM Sample Type: Per a U-50 Other: ed <u>all</u> tubing; disposa	pth:	Weather:	partly cl ered Other:	Dudy To Other:	
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315 AM Sample Type: Per a U-50 Other: ed <u>all</u> tubing; disposa	pth: PM Ie: [] Filterec Ictath	Weather:	partly cl ared Other:	Dudy Tother:	
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315  AM Sample Type: per a U-50 Other: ed <u>all</u> tubing; disposa	pth: PM I: D Filterec I: C T A. H. I Ible and/or d Ortho	Weather:	FILTER)	Other:	)3) <b>Г</b>
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315  AM Sample Type: Per a U-50 Other: a U	pth: PM le: D Filterec ictation ible and/or d Ortho TKN/I	Weather:	partly cl           ared Other:           icon and poly tubin           FILTER)           Di	Dudy Dody So Other: iss. Metals (HNK VOCs /H/	23) [
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315  AM Type: Percent a U-50 Other: ed <u>all</u> tubing; disposa C OC (H2SO4) [] als (HNO3) []	pth: PM is: D Filterec ible and/or d Orthop TKN/I	Weather: 1 1 C Unfilte Edicated sill phos (I Phos (I	FILTER)	Dudy To Other: iss. Metals (HINC VOCs (HI	) ) ) ) )
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg	pth: ph.PM le: D Filterec ista the ible and/or of Orthon TKN/F	Weather:	Partly Clever Cl	Dudy To Other:	D3) [ C1) (
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg	pth:	Weather:	Partly Cl ared Other: icon and poly tubin FILTER)[] Di N2SO4) [] Comments:	Budy By Other: Iss. Metals (HNC VOCs (HC	) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg  I Cocation and Deg  AM  Sample  Type: Per  a U-50 Other:  ed <u>all</u> tubing; disposa  OC (H2SO4)  als (HNO3)  mbers:  Pur	pth:	Weather:	Partly Cleared Other:	Dudy To Other: iss. Metals (HINC VOCs (HC 2 AOCK	) )) ), )
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg	pth:	Weather:	Partly Cl ared Other: icon and poly tubin FILTER) Di N2SO4) Di Comments: A OTANG	Dudy To Other: To Ss. Metals (HNC VOCs (HC 2 FLOCK	23) [ CI) 1
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg  I Cocation and Deg  I AM  Sample  Type: Per  a U-50 Other:  ed <u>all</u> tubing; disposa  OC (H2SO4)  als (HNO3)  mbers: Pur	pth: p: PM e: ] Filterec ista the ible and/or of Orthon TKN/F	Weather:	Partly Clever red Other: icon and poly tubin FILTER)[] Di N2SO4) [] Comments: Comments:	Dudy To Other: iss. Metals (HINC VOCs (HC 2 AOCK	03) [ CI) ]
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315  AM Type: Percent a U-50 Other: ed <u>all</u> tubing; disposa C OC (H2SO4) [] als (HNO3) [] mbers: Purcent	pth:	Weather:	Partly Cl red Other: icon and poly tubin FILTER)[] Di N2SO4) [] Comments: A OTANO	Dudy By Other: ISS. Metals (HINC VOCS (HI 2 FLOCK	D3) [ CI) 1
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315 AM Sample Type: Percent a U-50 Other: ed <u>all</u> tubing; disposa V OC (H2SO4) [] als (HNO3) [] mbers: Prove	pth:	Weather:	Partly Clever red Other: icon and poly tubin FILTER) Di N2SO4) Di Comments:	Dudy To Other: iss. Metals (HINC VOCs (HC 2 AOCK	03) [ Ci) ]
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315 AM Sample Type: Percent automotion of the second seco	pth:	Weather:	Partly Cl red Other: icon and poly tubin FILTER) Di N2SO4) Di Comments: A OTANG	Dudy To Other: ss. Metals (HINC VOCs (HC 2 flock	D3) [
Date Collected (mo/dy/yr):       3/30/18       Time Collected:       1         Type:       Ground Water       Surface Water Other:	Location and Deg 315AM Sample Type: per a U-50 Other: ed <u>all</u> tubing; disposa V OC (H2SO4) [] als (HNO3) [] mbers: Prove	pth:	Weather:	Partly cl red Other: icon and poly tubin FILTER)[] Di N2SO4) [] Comments: A OTOMO Comments:	Dudy To Other: ss. Metals (HINC VOCs (HC 2 AOCK	) ) ) ) )

Project N	Project Name: (+++- Olympia Project Number: T-9					Date of Collection: 3/30/08					
Project Number: 1 - 1					Field Personnel: P. Osterhout						
Purge Data	1										
Well ID: <u>M</u>	w-11	6	Secure: 🗭	Yes 🗌 No	Well Condition/Dan	nage Descri	ption: Mi	ising one b	01+		
Depth Sounde	er decontaminate	ed Prior to Place	ment in Well:	Yes INo	One Casing Volum	e (gal):					
Depth of water	r (from top of we	Il casing):	39 (A	rtesian)	_ Well Casing Type/D	)iameter/Sc	reened Interv	at: 2" PVC . S	5-10'		
After 5 minute:	s of purging (from	m top of casing):			Volume of Schedule 40 PVC Pipe						
Begin purge (time): 1215				Diameter	0.D.	I.D. Vo	Volume (Gal/Linear Ft.)	Weight of Water			
End purge (time): 1240				1 1/4" 2"	1.660" 2.375"	1.380" 2.067"	0.08	0.64			
Gallons purged: 0.75				3*	3.500 <sup>-</sup> 4.500 <sup>-</sup>	3.068"	0.38	3.2			
Purge water di	isposal method:	Infiltrat	e on sit	e	6*	6.625*	6.065*	1.5	5.51 12.5		
Time	Depth to Water	Vol. Purged	pH	DO	Conductivity	Turbidit	y Ter	np 🅜 ORP 🖍	V Comments		
1220	0.531	075L	7.49	1.81	0.180	3.7	10	94 -73			
1230	0.52	1.56	1.3T	0.40	0.180	0.0	10-	47 -83	slowed pur		
235	0.541	250L	7.33	0.00	0.100	0.0	- 10.	11 -86			
				0.00	0.100			2 -00			
ampling D	Data										
Sample No:	UN-11-0	33018			Lessies and D						
Date Collected	(mo/dy/yr): 3	30/18	Time	Collected		xn:			1		
Type: M Groun	nd Water ITI Su	face Water O				O PM	Weather:	artly cloud	ч		
, Joo, La Chunn		nace water Ot	ner:		Sample	e: 🛛 Filtere	d 🛕 Unfilten	ed Other:			
Sample Collect	od with 🗖 Daila		6 X X 2 C								
Sample Collecte	ted with: 🔲 Baile	r 💆 Pump Otl	her:		Type: Plan	stattic					
Sample Collect	ted with: □ Baile	r 👿 Pump Otl Collected with: 1	her: Type: 🔲 Horiba	U-22 💆 Horib	Type: Plan	stattic					
Sample Collecti Water Quality Ir Sample Decon I	ted with: □ Baile nstrument Data ( Procedure: Sá	r 👿 Pump Oth Collected with: 1 ample collected in	her: Type: [] Horiba with (circle one	9 U-22 💆 Horib	Type: Plan	stattic	edicated silic	on and poly hubicat	Other		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip	ted with: □ Baile nstrument Data ( Procedure: Sá btion (Color, Turt	r I Pump Oth Collected with: 1 ample collected with; 0	her: Type: Horiba with (circle one er):	9 U-22 <u>M</u> Horib e): decontaminat	Type: Plays a U-50 Other: ed <u>all</u> tubing; disposal	stattic ble and/ord	edicated silic	on and poly tubing (	Other:		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip	ted with: ☐ Baile nstrument Data ( Procedure: Sá ption (Color, Turt	r V Pump Oth Collected with: 1 ample collected o pidity, Odor, Oth	her: Horiba with (circle one er):	e U-22 💆 Horib e): decontaminat <u>G NO Odlo</u>	Type: Playa a U-50 Other: ed <u>all</u> tubing; disposal	static ble and/ord	edicated silic	on and poly tubing (	Other:		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana	ed with: □ Baile nstrument Data ( Procedure: Sá btion (Color, Turt a <b>lyses</b>	r V Pump Ott Collected with; 1 ample collected r pidity, Odor, Oth	her: Horiba with (circle one er):	e U-22 💆 Horib e): decontaminat <u>G NO odlo</u>	Type: Plays a U-50 Other: ed <u>all</u> tubing; disposal	static ble and/ord	edicated silic	on and poly tubing (	Other:		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D	ted with: ☐ Baile Instrument Data ( Procedure: S; otion (Color, Turt alyses (HCl) □	Pump Oth Collected with: 1 ample collected with: 0 bidity, Odor, Othe Chlor / Eluor	her: Horiba with (circle one er):(2004	e U-22 💆 Horib e): decontaminat <u>ç No odo</u>	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal	stathc ble and/ord	edicated silic	on and poly tubing (	Other:		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G	ed with: ☐ Baile nstrument Data ( Procedure: Sa otion (Color, Turt alyses (HCl) ☐ (HCl) ☐	r V Pump Ott Collected with: 1 ample collected r pidity, Odor, Oth Chlor / Fluor.	her: Type: [] Horiba with (circle one er): (lease (unpres) [	e U-22 M Horib e): decontaminat <u>G NO Odlo</u> 	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal	static ble and/of d Ortho	edicated silic	on and poly tubing (	Other: Metals (HNO3) [		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G	ed with: Daile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCl) D (HCl) D	r V Pump Oth Collected with: 1 ample collected with: 0 oldity, Odor, Oth Chlor / Fluor. BTEX	her: Fype: [] Horiba with (circle one er): C[CAV (unpres) [ (HCI) [	a U-22 💆 Horib a): decontaminat <u>G NO Odlo</u>     Total Met	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal V OC (H2SO4) [] tals (HNO3) []	stathc ble and/ord Ortho TKN/	edicated silic phos (FI Phos (N2	on and poly tubing ( LTER) Diss. I 2SO4)	Other: Metals (HNO3) [ VOCs (HCI) [		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G dditional In	ed with: Daile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) D (HCI) D Information	r V Pump Oth Collected with: 1 ample collected with: 0 pidity, Odor, Othe Chlor / Fluor. BTEX	her: Horiba with (circle one er):(LCAV (unpres) [ (HCI) [	e U-22 💆 Horib e): decontaminat <u>C NO OCO</u> COD / Tr Total Met	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal P OC (H2SO4) [] als (HNO3) []	static ble and/ord Ortho TKN/	edicated silic	on and poly tubing ( LTER) Diss. I 2SO4)	Other: Metals (HNO3) [ VOCs (HCI) [		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G dditional In Types of Sam	ed with: Daile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCl) D (HCl) D Information Inple Container:	r V Pump Oth Collected with: 1 ample collected with: 1 oidity, Odor, Oth Chlor / Fluor. BTEX s: Quantity	her: Fype: [] Horiba with (circle one er):(CAN (unpres) [ (HCI) [ //: Duplica	a U-22 💆 Horib a): decontaminat <u> <u> <u> </u> <u> </u></u></u>	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal P OC (H2SO4) [] tals (HNO3) [] mbers: []	Stathc ble and/ord Ortho TKN/	edicated silic phos (FI Phos (N2	on and poly tubing ( LTER) Diss. I 2SO4)	Other: Metals (HNO3) [ VOCs (HCI) [		
Sample Collect Water Quality Ir Sample Decorn I Sample Descrip ample Ana TPH-D TPH-G dditional Ir Types of Sam O m L. VO	ed with: □ Baile nstrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) □ (HCI) □ nformation nple Container: A w/ HC(	r V Pump Oth Collected with: 1 ample collected with: 1 ample collected with: 1 oldity, Odor, Othe Chlor / Fluor. BTEX S: Quantity	her: Fype: [] Horiba with (circle one er): (unpres) [ (HCI) [ /: Duplica N	e U-22 💆 Horib e): decontaminat <u>G NO OCO</u> COD / Tr COD / Tr Total Met ate Sample Nu	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal COC (H2SO4) [] als (HNO3) [] mbers:	stattic ble and/of d Ortho TKN/	edicated silic phos (FI Phos (N2 at 0.3	LTER) Diss. 1 2SO4)	Other: Metals (HNO3) [ VOCs (HCI) ] Opened we		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G dditional In Types of Sam Om L. VO	ed with: □ Baile nstrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) □ (HCI) □ (HCI) □ Information nple Container: A w HC(	r V Pump Oth Collected with: 1 ample collected with: 1 oridity, Odor, Othe Chlor / Fluor. BTEX S: Quantity	her: Fype: [] Horiba with (circle one er):(LCA) (unpres) [ (HC1) [ /:N	a U-22 d Horib a): decontaminat <u>a): decontaminat</u> <u>a): deconta</u>	Type: Plan a U-50 Other: ed <u>all</u> tubing; disposal COC (H2SO4) [] als (HNO3) [] mbers: Wate	Stathic ble and/ord Ortho TKN/	edicated silic phos (FI Phos (N) at 0.3	Comments:	Other: Metals (HNO3) [ VOCs (HCI) ] Opened we		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip <b>ample Ana</b> TPH-D TPH-G <b>dditional I</b> Types of Sam Om L. VOI	ed with: □ Baile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) □ (HCI) □ Information Inple Container: A w/ HC(	r V Pump Oth Collected with: 1 ample collected with: 1 ample collected with: 1 oldity, Odor, Othe Chlor / Fluor. BTEX S: Quantity 5	her: Fype: [] Horiba with (circle one er): (unpres) [ (HCI) [ /: Duplica	e U-22 💆 Horib e): decontaminat <u>G NO OCO</u> COD / Tr Total Met ate Sample Nu one	Type: Plan a U-50 Other: ed <u>all</u> tubing; disposal COC (H2SO4) [] als (HNO3) [] mbers: Wate	Stattic ble and/ord Ortho TKN/	edicated silic phos (FI Phos (N2 at 0.3 bega	Comments:	Other: Metals (HNO3) [ VOCs (HCI) ] Opened we		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G dditional In Types of Sam	ed with: □ Baile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCl) □ (HCl) □ (HCl) □ Information Inple Container: IA w/ HCl	r V Pump Oth Collected with: 1 ample collected with: 1 oidity, Odor, Oth Chlor / Fluor. BTEX S: Quantity 5	her: Fype: [] Horiba with (circle one er):(LCA) (unpres) [ (HC1) [ /:N	a U-22 d Horib a): decontaminat <u> <u> <u> </u> <u> </u></u></u>	Type: Plan a U-50 Other: ed <u>all</u> tubing; disposal COC (H2SO4) [] als (HNO3) [] mbers: Wate but	Stathic ble and/ord Ortho TKN/ <u>UC (evc)</u> <u>Slowly</u> <u>Volum</u>	edicated silic phos (FI Phos (N: at 0.0 bega	Comments:	Other: Metals (HNO3) [ VOCs (HCI) ] Opened we		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip <b>ample Ana</b> TPH-D TPH-G <b>dditional I</b> Types of Sam Om L. VOI	ed with: □ Baile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) □ (HCI) □ Information Inple Container: A w/ HC(	r V Pump Oth Collected with: 1 ample collected with: 1 ample collected with: 1 oldity, Odor, Othe Chlor / Fluor. BTEX S: Quantity 5	her: Type: [] Horiba with (circle one er): (unpres) [ (HCI) [ /: Duplica	e U-22 💆 Horib e): decontaminat <u>G NO OCO</u> COD / Tr Total Met ate Sample Nu one	Type: Play a U-50 Other: ed <u>all</u> tubing; disposal r OC (H2SO4) [] als (HNO3) [] mbers:  but Extra	Stattic Dile and/ord Ortho TKN/ <u>Vr  evel</u> <u>Slowly</u> <u>Volum</u>	edicated silic phos (FI Phos (N2 at 0.3 beganse ne for	Comments:	Other: Metals (HNO3) [ VOCs (HCI) 2 <u>Opened we</u>		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip ample Ana TPH-D TPH-G dditional In Types of Sam	ed with: □ Baile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCl) □ (HCl) □ Information Inple Container: IA w HC(	r V Pump Oth Collected with: 1 ample collected with: 1 oridity, Odor, Oth Chlor / Fluor. BTEX S: Quantity 5	her: [ype: [] Horiba with (circle one er):(LCA) (unpres) [ (HC1) [ /:N	a U-22 d Horib a): decontaminat <u>a): decontaminat</u> <u>a): deconta</u>	mbers:	Stathic ble and/ord Ortho TKN/ <u>Velevel</u> Volum	edicated silic phos (FI Phos (N2 at 0.2 bega	Comments:	Other: Metals (HNO3) [ VOCs (HCI) ] Opened we		
Sample Collect Water Quality Ir Sample Decon I Sample Descrip <b>ample Ana</b> TPH-D TPH-G <b>dditional Ir</b> Types of Sam O m L VO	ed with: □ Baile Instrument Data ( Procedure: Sa otion (Color, Turt alyses (HCI) □ (HCI) □ Information Inple Container: A w HC(	r V Pump Oth Collected with: 1 ample collected with: 1 ample collected with: 1 oldity, Odor, Othe Chlor / Fluor. BTEX S: Quantity 5	her: Type: [] Horiba with (circle one er): (unpres) [ (HCI) [ /: Duplica	a U-22 d Horib a): decontaminat <u>( No odlo</u> COD / Tr Total Met ate Sample Nu owe	Type: Plan a U-50 Other: ed <u>all</u> tubing; disposal COC (H2SO4) [] als (HNO3) [] mbers: Wate but Extra	stattic ble and/ord Ortho TKN/	edicated silic phos (FI Phos (N2 at 0.3 bega	ITER) Diss. 1 2SO4) Diss. 1 Comments: 39' When I n to rise.	Other: Metals (HNO3) [ VOCs (HCI) 2 Opened we		

Drainat M	vame: 01	IT-OLAN	pig		Date of Colle	ction: 2	30/18				
Project Number: T-9					Field Personnel: P. Osterhout						
Purge Data					and the second						
	N-13		Secure: 🗹 Yes	No V	Well Condition/Dan	nage Descripti	ion: Fill	ed us wat	er		
Depth Sounder	decontaminate	d Prior to Placer	nent in Well: 🗌 Y	es 🗌 No 🛛 🤇	One Casing Volume	e (gal):					
Depth of water	(from top of wel	Il casing):	18	v	Vell Casing Type/D	)iameter/Scre	ened Interv	al: 2" PVC	. 4.5-9.5'		
After 5 minutes	of purging (fror	n top of casing):	1.35'		Volume of Schedule 40 PVC Pipe						
Begin purge (time): 028					Diameter	0.D. I.D.		Volume (Gal/Linear Ft.)	Weight of Water (Lbs/Lineal Ft.)		
End purge (time	e): _1053	5			1 %"	1.660" 2.375"	1.380" 2.067"	0.08	0.64		
Gallons purged: 0.9 gals					- 3"	3.500" 4.500"	3.068"	0.38	3.2		
Purge water dis	posal method:	Infiltra	te on sit	2	6"	6.625*	6.065*	1.5	12.5		
Time	Depth to Water	Vol. Purged	рН	DO	Conductivity	Turbidity	Те	mp C ORP	Commer		
1033	1.801	176	7.38	0.72 _	0.229	11.5	10	.82 -13	o slowedp		
1043	2.23	2.251	7.79	0.13	0.225 6 221	8.0	_ 10.	61 - 145	<u> </u>		
1048	2.36'	275L	7.89	0.010	0.220	2.7	- <u>10</u> .	105 -153			
						-					
						0 <del></del>	-				
		Statistic and second second									
Sampling D	ata				and the second distance in the second distanc		- Proventieren				
Sample No: <u>M</u>	W-13-	033018			Location and Dep	oth:					
Date Collected (	mo/dy/yr):	3/30/201	B Time C	ollected: 105	50 💆 AM	D PM V	Veather: 1	Partly clo	udy		
Type: 🕅 Ground	d Water 🛛 Su	rface Water Ot	her:		Sample	e: 🛛 Filtered	Unfilter	red Other:	2		
Sample Collecte	d with: D Baile		ner:		Type: Der	ichallic					
Sample Oblicelle		Pump Ou	and the second sec			DIAIII			The second states and the second states and the		
Water Quality In	strument Data (	Collected with: 1	ype: 🛛 Horiba U-	-22 🙇 Horiba U	J-50 Other:	Diatili					
Water Quality In Sample Decon F	strument Data ( Procedure: Sa	Collected with: 1	ype: 🛛 Horiba U-	-22 🕅 Horiba U	J-50 Other:		Post of all				
Water Quality In Sample Decon F	strument Data ( Procedure: Sa lion (Color Turt	Collected with: 1	ype: ☐ Horiba U- with (circle one): o	22 D Horiba U	J-50 Other:	ble and/or de	dicated sili	con and poly tubing	• Other:		
Water Quality In Sample Decon F Sample Descript	strument Data ( Procedure: Sa lion (Color, Turt	Collected with: 1 ample collected v	ype: □ Horiba U- with (circle one): d er): <u>Cleav  </u>	22 A Horiba U decontaminated	J-50 Other	ble and/or de	dicated sili	con and poly tubing	• Other:		
Water Quality In Sample Decon F Sample Descript	strument Data ( Procedure: Sa lion (Color, Turt	Collected with: 1 ample collected v	ype: □ Horiba U- with (circle one): d er): <u>Cleav </u>	22 Decontaminated	J-50 Other <u>all</u> tubing; disposa	ble and/or de	dicated sili	con and poly tubing	• Other:		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D	strument Data ( Procedure: Sa tion (Color, Turt I <b>lyses</b> (HCI)	Collected with: T ample collected with: T oidity, Odor, Othe Chlor / Fluor	ype:    Horiba U- with (circle one): ( er): <u>Clear   1</u> (unpres) []	22 Decontaminated	J-50 Other <u>all</u> tubing; disposa	ble and/or de	dicated sili	con and poly tubing	D Other: s. Metals (HNO3		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G	strument Data ( Procedure: Sa tion (Color, Turt I <b>lyses</b> (HCI) [] (HCI) []	Collected with: T ample collected v bidity, Odor, Othe Chlor / Fluor. BTEX	ype:    Horiba U- with (circle one): ( er): <u>Clear   1</u> (unpres)    (HCl)	22 D Horiba U decontaminated <u>No ador</u> COD / TOC Total Metals	J-50 Other: all tubing; disposa (H2SO4) [] 6 (HNO3) []	ble and/or de Orthopi	dicated silie hos (F	Con and poly tubing	Dother: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G	strument Data ( Procedure: Sa tion (Color, Turt I <b>lyses</b> (HCI) [] (HCI) []	Collected with: 1 ample collected with: 1 oldity, Odor, Othe Chlor / Fluor BTEX	ype:    Horiba U- with (circle one): ( er): <u>Clear</u>   ( er): (Unpres)    (HCI)	22 Decontaminated	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) []	ble and/or de Orthopi TKN/Pi	dicated silie hos (F hos (N	con and poly tubing	D Other: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt IJyses (HCI) (HCI) (HCI) Tformation ple Container:	Collected with: 1 ample collected v bidity, Odor, Othe Chlor / Fluor BTEX S: Quantity	ype:    Horiba U- with (circle one): ( er): <u>Cleav</u>    (unpres)    (HCI)	22 Decontaminated	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) [] bers; []	ble and/or de Orthopi TKN/Pi	dicated sili hos (F	con and poly tubing	D Other: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt Ilyses (HCI) (HCI) (HCI) Information ple Container Aw/HCI	Collected with: 1 ample collected with: 1 oidity, Odor, Othe Chlor / Fluor BTEX s: Quantity 3	ype: Deniba U- with (circle one): ( er): <u>Clear</u> ( (unpres) ( (HCI) ( Clear) ( (HCI) ( Clear) ( (HCI) ( Clear) ( (HCI) ( Clear) ( (HCI) ( ( No	22 Decontaminated	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) [] bers:	ble and/or de Orthopi	dicated silin hos (F	con and poly tubing	D Other: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt Ilyses (HCI) [] (HCI) [] Information ple Container A w/ HCI	Collected with: 1 ample collected v oidity, Odor, Othe Chlor / Fluor BTEX s: Quantity 3	ype: Depicate	22 Decontaminated <u>No ador</u> COD / TOC Total Metals Sample Numb	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) [] bers:	ble and/or dea Orthopi TKN/Pi	dicated silie hos (F	con and poly tubing	Dother: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt IJyses (HCI) (HCI) (HCI) Difformation ple Container Aw/HCI	Collected with: 1 ample collected with: 1 ample collected with: 1 chlor / Fluor BTEX s: Quantity 3	ype: Deriba U- with (circle one): o er): <u>Cleav</u> (unpres) (Dir (HCI) (HCI) (HCI)	22 Decontaminated	J-50 Other: all tubing; disposa (H2SO4) [] (HNO3) [] bers:	ble and/or de Orthopi TKN/Pi	dicated silie	con and poly tubing	Dother: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt Ilyses (HCI) [] (HCI) [] Information ple Container A w HCI	Collected with: 1 ample collected v oidity, Odor, Othe Chlor / Fluor BTEX s: Quantity 3	ype:    Horiba U- with (circle one): ( er): <u>Clear</u>   ( (unpres)    (HCI)    /: Duplicate	22 Decontaminated <u>No ador</u> COD / TOC Total Metals Sample Numb	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) [] bers:	ble and/or dea Orthopi TKN/Pi	dicated silie hos (F	con and poly tubing	Dother:		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional Ir Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt Ilyses (HCI) (HCI) (HCI) Dele Container Aw/HCI	Collected with: 1 ample collected with: 1 ample collected with: 1 chlor / Fluor BTEX S: Quantity 3	ype: Depiler Horiba U- with (circle one): ( er): <u>Clear</u> (unpres) (Depiler): (HCI) (HCI) (HCI) (HCI) (Depiler) (HCI) (HCI) (Depiler): (HCI	22 Decontaminated	J-50 Other: all tubing; disposa (H2SO4) [] (HNO3) [] bers:	Die and/or de Orthopi TKN/Pi	hos (F	con and poly tubing	D Other: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt Ilyses (HCI) [] (HCI) [] Information ple Container A w/ HCI	Collected with: 1 ample collected with: 1 ample collected with: 1 chlor / Fluor. BTEX s: Quantity 3	ype:    Horiba U- with (circle one): ( er): <u>Clear</u>     (unpres)    (HCI)    r: Duplicate	22 Decontaminated	J-50 Other <u>all</u> tubing; disposa (H2SO4) [] (HNO3) [] bers:	Dile and/or dea Orthopi TKN/Pi	dicated silin hos (F	con and poly tubing	D Other: s. Metals (HNO3 VOCs (HCI)		
Water Quality In Sample Decon F Sample Descript Sample Ana TPH-D TPH-G Additional In Types of Sam	strument Data ( Procedure: Sa tion (Color, Turt IJyses (HCI) (HCI) (HCI) Defended for the second sec	Collected with: 1 ample collected with: 1 ample collected with: 1	ype:    Horiba U- with (circle one): ( er): Clear    ( (unpres)    ( (HCI)    ( r: Duplicate	22 Decontaminated <u>No odor</u> COD / TOC Total Metals Sample Numb	J-50 Other all tubing; disposa (H2SO4) [] (HNO3) [] bers:	Die and/or des Orthopi TKN/Pi	hos (F	con and poly tubing	Dother:		

Project Number: T-0	pia	Date of Colle	ction: 2 lan	18			
		Field Personnel: P Osteriout					
Purge Data			P-Usi	errout			
Well ID: MW-14	Secure: 🛛 Yes 🔲 No	Well Condition/Dan	nage Description:	good			
Depth Sounder decontaminated Prior to Place	ment in Well: Ves 🗋 No	One Casing Volum	e (gal):	-			
Depth of water (from top of well casing):	tesian	_ Well Casing Type/D	iameter/Screened I	nterval: _2" PVC	, 10-15' angl		
After 5 minutes of purging (from top of casing):		-	Volume of S	chedule 40 PVC P	lipe		
Begin purge (time): 133		Diameter	0.D. I.D.	Volume (Gal/Linear Ft.)	Weight of Water (Lbs/Lineal Ft.)		
End purge (time): 1202		- 2"	1.660" 1.380" 2.375" 2.067"	0.08	0.64		
Gallons purged: 1.75	6	- 4	3.500" 3.068" 4.500" 4.026"	0.38	3.2		
Purge water disposal method: infittate	on site	6"	6.625" 6.065"	1.5	12.5		
Time Depth to Vol. Water Purged	pH DOM	Conductivity	Turbidity	Temp 🕐 ORP 🐂	Comments		
1143 Artestan 1L	<u>+.81 [.99</u>	0.91	6.1	11.07 -38	-		
1148 11 11 351	744 0.5	0.192	0.0	1.19 -75			
153 "" 51	7.34 0.50	0.190	0.0	1.37 -87			
1158 " " 10.5L	7.34 0.00	0.202	3.9	142 -92	-		
		<u></u>		<u>FIE _17</u>	-		
ampling Data	and an						
Sample No: MIN - 14- 033018							
Date Collected (mo/dv/vr): 3/30/18	True Cata and L	Location and Dep	oth:		A		
			PM Weathe	- partly clou	dy		
Ground Water L Surface Water Ot	ther:	Sample	E Filtered WUn	filtered Other:	<u> </u>		
Sample Collected with: Bailer Pump Ot	her:	Type:	istattic				
Water Quality Instrument Data Collected with: 7	Type: 🗆 Horiba U-22 🕅 Horib	a U-50 Other.					
Sample Decon Procedure: Sample collected	with (circle one): decontamina	ted all tubing; disposal	ble and/or dedicated	silicon and poly tubine	Other		
	. Menon de			silicon and poly tubing	Other:		
Sample Description (Color, Turbidity, Odor, Othe		A REAL PROFESSION OF A DESCRIPTION OF A					
Sample Description (Color, Turbidity, Odor, Othe ample Analyses	er): <u>Clcur, No Odo</u>						
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor	(unpres) COD / 1	TOC (H2SOA) [7]	Orthester				
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor TPH-G (HCI) BTEX	(unpres) COD / 1 (HCI) Total Me	FOC (H2SO4) □	Orthophos	(FILTER) Diss	Metals (HNO3)		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor TPH-G (HCI) BTEX dditional Information	(unpres) COD / 1 (HCI) Total Me	FOC (H2SO4) [] etals (HNO3) []	Orthophos TKN/Phos	(FILTER) Diss (N2SO4)	Metals (HNO3) 🗆 VOCs (HCI) 🙀		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCl) Chlor / Fluor. TPH-G (HCl) BTEX dditional Information	(unpres) COD / 1 (HCI) Total Me	FOC (H2SO4) [] etals (HNO3) []	Orthophos TKN/Phos	(FILTER)□ Diss (N2SO4) □	Metals (HNO3) 🗖 VOCs (HCi) 🎽		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor TPH-G (HCI) BTEX dditional Information Types of Sample Containers: Quantity	(unpres) COD / 1 (HCl) Total Me	FOC (H2SO4) etals (HNO3) umbers:	Orthophos TKN/Phos	(FILTER) Diss (N2SO4) D	Metals (HNO3) 🗌 VOCs (HCI) 🙀		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor. TPH-G (HCI) BTEX dditional Information Types of Sample Containers: Quantity OML VOA w/ HCI 335	(unpres) COD / T (HCl) Total Me y: Duplicate Sample Nu	FOC (H2SO4) tals (HNO3) umbers:	Orthophos TKN/Phos	(FILTER) Diss (N2SO4) D	Metais (HNO3) 🗖 VOCs (HCi) 🏹		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCl) Chlor / Fluor. TPH-G (HCl) BTEX dditional Information Types of Sample Containers: Quantity OML VOA W/HCL 35	(unpres) COD / 1 (HCI) Total Me y: Duplicate Sample None	TOC (H2SO4) □ etals (HNO3) □ umbers:	Orthophos TKN/Phos	(FILTER)□ Diss (N2SO4) □ Comments:	Metals (HNO3) 🗌 VOCs (HCI) 🎽		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCI) Chlor / Fluor. TPH-G (HCI) BTEX dditional Information Types of Sample Containers: Quantity OML VOA w/ HCI 35	(unpres) COD / 1 (HCI) Total Me y: Duplicate Sample Nu MUX None	TOC (H2SO4)	Orthophos TKN/Phos	(FILTER)□ Diss (N2SO4) □ Comments:	Metals (HNO3) VOCs (HCI)		
Sample Description (Color, Turbidity, Odor, Oth ample Analyses TPH-D (HCl) Chlor / Fluor. TPH-G (HCl) BTEX dditional Information Types of Sample Containers: Quantity OML VOA w/ HCL 355	(unpres) COD / 1 (HCI) Total Me y: Duplicate Sample Nu MUX None	FOC (H2SO4) [] etals (HNO3) [] umbers:	Orthophos TKN/Phos	(FILTER) Diss (N2SO4) Comments:	Metals (HNO3) VOCs (HCI)		