PUBLIC REVIEW DRAFT Remedial Investigation Report Addendum
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington 98168
Ecology Facility/Site No.: 2551
Agreed Order No.: DE-10947

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G-Logics Project 01-0410-R

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G-Logics Project 01-0410-S

Mr. Dale Myers
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Subject: **PUBLIC REVIEW DRAFT Remedial Investigation Report Addendum**
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington 98168

Dear Mr. Myers:

G-Logics prepared a Remedial Investigation Report Addendum for the Boeing Field Chevron Site located at 10805 East Marginal Way South, in Tukwila, Washington. This public review draft version of the document incorporates responses to Washington State Department of Ecology (Ecology) comments on the draft final report provided in an electronic mail from you dated April 22, 2025. We trust the information presented in this report meets your needs at this time. Should you require additional information or have any questions, please contact us at your convenience. Thank you again for this opportunity to be of service.

Sincerely,
G-Logics, an Atlas Geosciences NW Company

DRAFT

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1.0 INTRODUCTION

The Remedial Investigation Report Addendum (RI Report Addendum) documents the results from a groundwater monitoring and sampling event performed at the Boeing Field Chevron property located at 10805 East Marginal Way South, Tukwila, Washington (Property) between March 27 and 29, 2024. The location of the Property is shown in Figure 1. This RI Report Addendum is supplemental to the *Remedial Investigation Report, Boeing Field Chevron, 10805 East Marginal Way South, Tukwila, Washington* 98168 (RI Report) prepared by G-Logics and dated October 7, 2020.

The Washington State Department of Ecology (Ecology) requested the groundwater monitoring and sampling event to update the nature and extent of petroleum hydrocarbons in groundwater and the groundwater hydraulics for the "Site." The "Site" refers to the areas of soil, groundwater, and soil gas that have been impacted with petroleum contaminants originating from the fuel storage and dispensing operations on the Property. G-Logics performed the groundwater monitoring and sampling following the *Final Groundwater Monitoring and Sampling Workplan, Boeing Field Chevron, 10805 East Marginal Way South, Tukwila, Washington 98168* (workplan), prepared by G-Logics and dated December 6, 2023, that was approved by Ecology.

2.0 BACKGROUND

Retail fuel dispensing operations have been conducted on, or adjacent to, the Property since at least 1941. During this period, the Property has been impacted by at least three separate releases of petroleum products. The first two of these consisted of an unquantified release of petroleum products associated with retail fuel dispensing operations prior to approximately 1984 and a minor release in 1996 of unspecified petroleum products discovered during the removal of an underground storage tank. The third, and most recent, release of gasoline product was associated with a fuel supply line leak discovered and reported to Ecology in 2003. Environmental investigation and remediation activities have been ongoing at the Site to address these releases since 1990.

The investigation and remediation activities at the Site completed prior to 2022 are summarized in the RI Report. An *in situ* chemical oxidation and total liquids removal pilot test was completed at the Property in 2022 and 2023, the results or which are included in the report titled *Revised Pilot Test Report, Boeing Field Chevron, 10805 East Marginal Way South, Tukwila, Washington 98186*, by G-Logics and dated August 13, 2024. Groundwater sampling at select wells was completed during the pilot test and results are described in that report and are included in this report.

The surficial geologic map for the area indicates that the surface of the Site is underlain by silt, sand, and gravel deposited within the Duwamish River valley (Troost et al. 2005). Soil borings on the Site generally encountered imported fill materials composed of a mixture of sand, silt, and gravel to approximately 9 feet below ground surface (bgs). Brown, medium-grained, silty sand, fine-to-medium-grained sand lenses, and thinly interbedded silt and sand are present beneath the fill to a depth of 9 to 12 feet bgs. Beneath this layer, silty clay was found to depths of approximately 12 to 18 feet bgs. Deep borings advanced at the Site recovered dark gray, poorly sorted to moderately sorted, medium to coarse sand with occasional silt from approximately 18 feet bgs to the maximum explored depth of 35 feet bgs.

Two separate water-bearing zones underlie the Site. These two zones are identified as an upper water-bearing zone primarily within sandy fill materials (Upper Saturated Zone) and a lower, semi-confined aquifer (Lower Saturated Zone) in sandy estuarine deposits. These two zones are separated by a silty confining layer representing the original pre-fill tidal estuary surficial deposits. Monitoring wells in both of these water-bearing zones were included in the monitoring program executed for this study as described in the next section.

The RI Report describes the following as contaminants of concern at the Site:

- Gasoline, diesel, and oil range organics (GRO, DRO, and ORO, respectively);
- Benzene, toluene, ethylbenzene, and xylenes (BTEX);
- Methyl tert-butyl ether; and
- Naphthalenes.

The RI report also indicates that GRO and benzene are appropriate indicator contaminants for the extent of petroleum hydrocarbons in soil and groundwater at the Site, as these components are present in conjunction with, and in a generally proportional concentration to, each of the other contaminants of concern, where detected.

3.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with the workplan, G-Logics performed a groundwater monitoring and sampling event at the Site on March 27, 28, and 29, 2024, that included:

- Measurement of the depth to groundwater and, where present, light nonaqueous-phase liquid (LNAPL) at 20 monitoring wells:
    - Upper Saturated Zone wells IP-4, TW-2, TW-3, MW-18, MW-20, MW-23, MW-24, MW-25, MW-26S, MW-27S, and MW-28S; and
    - Lower Saturated Zone wells IP-5, IP-7, MW-19, MW-21, MW-24D, MW-27D, MW-28D, and MW-29D, and MW-30;
- Collection of groundwater samples from 19 monitoring wells (excluding well IP-7), during which groundwater parameters were measured during the groundwater purging completed at each well prior to sample collection;
- Collection of a sample of LNAPL accumulated in well IP-7;
- Submittal of the groundwater and LNAPL samples to an analytical laboratory for analysis of petroleum-related analytes as described in Section 3.3.

The locations of the monitoring wells are shown in Figure 2.

3.1 Depth to Groundwater and Light Nonaqueous Phase Liquid

On March 27, 2024, groundwater water levels were measured at each monitoring well during an ebbing tide in the nearby Duwamish Waterway between the hours of 8:54 a.m. and 12:37 p.m. Before performing water level measurements, each monitoring well cover was opened and the well caps were removed to allow the static liquid level in the well casings to equilibrate with the ambient atmospheric pressure. The groundwater level and thickness of LNAPL, where present, were measured at each well on the Property using an oil/water interface probe. Groundwater levels in monitoring wells located in the Tukwila International Boulevard (TIB) right-of-way were measured using an electronic water level indicator. The depth to groundwater and LNAPL, where present, were measured in each of the monitoring wells to the nearest 0.01 foot below an established measurement point on the casing rim of each monitoring well.

3.2 Well Development and Sample Collection

Prior to collection of the groundwater sample at each monitoring well, groundwater was purged from the well using a peristaltic pump with dedicated disposable tubing. The pump tubing intake was located near the midpoint of the screened section of each well; if the water level in the well was lower than the midpoint, the intake was located approximately 1 foot below the groundwater surface. During purging, groundwater quality parameters, including temperature, pH, specific conductivity, turbidity, temperature, oxidation-reduction potential (ORP), and dissolved oxygen (DO), were measured using a vendor-calibrated water quality meter and a flow-through cell attached to the peristaltic pump discharge tubing. Purging at a given well was considered complete when three consecutive readings for the measured parameters were observed within 10 percent of one another or a minimum of three well casing water volumes was purged from the well. Alternately, if a well was purged dry, purging was considered complete once the monitoring well had been purged dry twice.

After groundwater purging was confirmed complete, each groundwater sample was collected into laboratory-prepared sample containers directly from the discharge from the peristaltic pump tubing. The flow-through cell used for groundwater parameter measurement was removed from the discharge tubing prior to sample collection.

3.3 Sample Analysis

The groundwater and LNAPL samples were transported to OnSite Environmental Inc., an Ecology-accredited laboratory, in Redmond, Washington, for analysis of the following.

Groundwater Samples

- Gasoline range organics (GRO) by Ecology Method NWTPH-Gx;
- Diesel range organics (DRO) and oil range organics (ORO) by Ecology Method NWTPH-Dx;
- For the groundwater samples from wells MW-24 and MW-30, DRO and ORO by Ecology Method NWTPH-Dx with silica gel cleanup; and
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8021B.

LNAPL Sample

- GRO by Ecology Method NWTPH-Gx;
- DRO and ORO by Ecology Method NWTPH-Dx; and
- BTEX, methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB), and 1,2-dichloroethane (EDC) by USEPA Method 8260D.

Samples were transported to the analytical laboratory in coolers with ice under strict chain of custody procedures.

4.0 DEVIATIONS FROM THE WORKPLAN

The scope and procedures described in the workplan were followed during this investigation. However, additional scope not included in the workplan was completed during the monitoring effort. During the implementation of the groundwater monitoring and sampling event, monitoring wells MW-24 and MW-30 were analyzed for DRO and ORO by Ecology Method NWTPH-Dx using silica gel cleanup in conjunction with the analysis of samples from those wells for DRO and ORO without silica gel cleanup as specified in the workplan. Groundwater in well MW-30 exhibited an orange color and although field personnel verbally reported evidence of the presence of dark-colored solid fragments of organic matter during the purging of groundwater from well MW-24, a description of the solid organic matter observed in groundwater from well MW-24 is not included in the field record. The groundwater sampling field forms that include observations and measurements of groundwater conditions are included in Appendix A. The purpose of the DRO and ORO analyses with silica gel cleanup was to evaluate whether analytical results for the samples may be biased by the presence of petroleum degradation products or naturally occurring organic matter in the groundwater samples.

During the development of this report, proposed cleanup levels described in the RI Report did not include specific establishment of proposed cleanup levels for the volatile organic compounds EDB, EDC, hexane, methyl tert-butyl ether, and xylenes. G-Logics proposed use of the following cleanup levels for these compounds in groundwater, selected consistently with the RI Report cleanup level screening process:

- EDB: 0.01 micrograms per liter (µg/L), the MTCA Method A Groundwater Cleanup Level;
- EDC: 5 µg/L, the MTCA Method A Groundwater Cleanup Level;
- Hexane: 480 µg/L, the most stringent MTCA Method B groundwater cleanup level;
- Methyl tert-butyl ether: 20 µg/L, the MTCA Method A Groundwater Cleanup Level; and
- Xylenes: 106 µg/L, the Aquatic Life Protective Value for Marine Water from Ecology Implementation Memorandum #23.

The proposed groundwater cleanup levels established in the RI Report and above are collectively referred to hereinafter in this report as "RI Cleanup Levels,"

5.0 RESULTS

A discussion of groundwater elevations and flow conditions at the Site on March 27, 2024, field parameters and observations, and groundwater sample results is presented below.

5.1 Groundwater Surface and Flow Conditions

A summary of groundwater and LNAPL level measurements and calculations of groundwater potentiometric surface elevations at the Site wells are included in Table 1.

5.1.1 Upper Saturated Zone

Groundwater elevations and associated potentiometric surface contours for groundwater in the Upper Saturated Zone are shown in Figure 3. The groundwater elevations in the Upper Saturated Zone ranged from 5.59 to 12.71 feet above mean sea level based on the North American Vertical Datum of 1988 (NAVD88). The groundwater elevation at IP-4 was not used to determine the groundwater flow direction because the measured depth of groundwater appeared to be anomalously high as compared to previous events and to the water levels in the surrounding wells.

Based on the groundwater elevation contours shown in Figure 3, the primary groundwater flow direction in the Upper Saturated Zone at the Property and the TIB right-of-way is north to northwest, with gradients of approximately 0.024 to 0.056, respectively. East of the fueling dispensers on the Property, the Upper Saturated Zone groundwater flows toward the east with a gradient of approximately 0.016. This groundwater flow condition from an apparent groundwater high on the Property has been observed in previous groundwater monitoring events. The apex of this groundwater divide is in the vicinity of the gasoline-related contaminants in groundwater at the Site, and conditions suggest that dissolved-phase contamination from the gasoline release area is migrating both easterly and westerly on either side of this groundwater divide, with the largest proportional contaminant mass residing on the west side of the groundwater divide. The distribution of groundwater geochemical conditions and dissolved-phase petroleum contaminants in groundwater at the Site described below in Sections 5.2 and 5.3.1, respectively, are consistent with this interpretation.

Although the silty confining layer between the Upper and Lower Saturated Zones is consistently observed in the borings completed through that depth interval at the Site, the observed variability in thickness of the confining layer suggests that there may be areas where the confining layer thickness is very thin or absent. This interpretation is consistent with that

described in the RI Report and in earlier site characterization reports. The presence of LNAPL and dissolved-phase petroleum hydrocarbons in the Lower Saturated Zone suggest a somewhat direct hydraulic connection with the Upper Saturated Zone in the vicinity of the gasoline release.

5.1.2 Lower Saturated Zone

Groundwater elevations and associated potentiometric surface contours for groundwater in the Lower Saturated Zone are shown in Figure 4. The groundwater elevations in the Lower Saturated Zone ranged from 4.79 to 8.97 feet above mean sea level based on the NAVD88. To calculate the actual groundwater elevation at monitoring well IP-7 where 0.98 feet of LNAPL was measured, the thickness of the LNAPL was multiplied by its specific gravity reported in the RI Report of 0.739, and the result subtracted from the depth to groundwater. That sum was subtracted from the elevation of the top of the monitoring well casing to provide the actual groundwater elevation indicated in Table 1.

Based on the groundwater elevation contours shown in Figure 4, the groundwater flow direction in the Lower Saturated Zone at the Property and the TIB right-of-way is toward the west-northwest with an approximate gradient of 0.030. At the Duwamish River, the groundwater flows east to southeast toward the TIB right-of-way median and east side of TIB with approximate gradients ranging from 0.017 to 0.075. The two opposing flow conditions in the Lower Saturated Zone may indicate that the hydraulic pressure wave from the earlier high tide was not fully dissipated when groundwater levels were measured.

5.1.3 Vertical Gradients

Downward vertical gradients from the Upper Saturated Zone to the Lower Saturated Zone were calculated from groundwater level measurements at well pairs MW-27S/MW-27D and MW-28S/MW-28D at 0.66 and 0.88, respectively. The downward vertical gradient is consistent with the observed distribution of LNAPL and dissolved-phase petroleum hydrocarbons in the Lower Saturated Zone sourced from a release to the Upper Saturated Zone and locally transmitted through an aperture in the confining layer as described in Section 5.1.1.

5.2 Groundwater Parameters

Table 2 presents the results for groundwater parameters measured in the field during the March 2024 groundwater sampling event and from previous monitoring events since 2022. A review of the 2024 parameter measurements shows that DO and ORP measurements are consistent with slightly to moderately oxidizing water upgradient and cross-gradient from the Site in both saturated zones while the groundwater within and downgradient of the Site in both zones exhibits slightly to moderately reducing conditions. Measurements also indicate that specific conductivity within the areas of decreased DO and ORP are higher than the surrounding areas as well. The ORP measurements for groundwater in the Upper and Lower Saturated Zones shown in Figures 5 and 6 illustrate this geochemical distribution observed at the Site. Within and downgradient of the area of petroleum contamination in groundwater in both zones, dissolved oxygen is generally depleted and specific conductivity is increased relative to the surrounding groundwater. This pattern of depletion of dissolved oxygen and oxidizing ions with an increase in specific conductivity is associated with biologic degradation of petroleum compounds in groundwater.

Measurements of temperature and pH of groundwater at the Site do not exhibit discernable trends temporally or spatially that indicate those component parameters are affecting or are affected by the petroleum hydrocarbons in groundwater. Note that even with appropriate factory and field calibration and equipment deployment techniques, field groundwater parameter measurements typically include large uncertainties in precision and accuracy. As such, the conditions described based on these measurements should be considered along with the entire body of groundwater quality data and relevant information regarding groundwater conditions.

5.3 Petroleum Hydrocarbons in Groundwater

Groundwater sample analytical results are presented in Table 3 and the distribution of petroleum hydrocarbons in groundwater in both saturated zones at the Site are shown in Figures 7 through 12. The analytical laboratory data report for the March 2024 groundwater and LNAPL samples is included in Appendix B.

5.3.1 Upper Saturated Zone Groundwater

During the March 2024 groundwater monitoring event, petroleum components detected in one or more of the Upper Saturated Zone wells include GRO, DRO, ORO, and BTEX. Each

of these analytes was detected at a concentration greater than the respective RI Cleanup Levels in at least one Upper Saturated Zone well. The extent of GRO and benzene in Upper Saturated Zone groundwater are shown in plan view on Figures 7 and 8, respectively. Cross sectional views of the distribution of GRO in Upper Saturated Zone groundwater relative to the associated hydrogeological conditions are included in Figures 9 and 10.

Except for benzene, petroleum hydrocarbons detected at concentrations greater than the respective RI Cleanup Levels in the Upper Saturated Zone in March 2024 are limited to the Property within the immediate vicinity of the 2003 gasoline release, except for the combined DRO and ORO concentration greater than the applicable cleanup level at well MW-24 (Table 3), which is interpreted as related to degradation products from the gasoline release. This distribution pattern is consistent with the distribution of petroleum components in groundwater observed during groundwater monitoring activities through 2018 as described in the RI Report and suggests that the current area of dissolved-phase petroleum in the Upper Saturated Zone is similar to the distribution indicated in the RI Report.

Field personnel verbally reported evidence of the presence of dark-colored solid fragments of organic matter during the purging of groundwater from well MW-24. However, a description of the solid organic matter observed in groundwater from well MW-24 is not included in the field record. The analytical results for the groundwater sample collected from MW-24 indicate that DRO and ORO were detected at concentrations less than their MTCA Method A Groundwater Cleanup Levels but at a combined concentration that is greater than the applicable cleanup level. The chromatogram for that sample exhibits a pattern that is consistent with the presence of weathered petroleum product in the sample. Additionally, the groundwater sample from that well analyzed after silica gel cleanup resulted in no detectable petroleum, further supporting a conclusion that the DRO and ORO in the original sample are related to degradation of the petroleum release.

5.3.2 Lower Saturated Zone Groundwater

During the March 2024 groundwater monitoring event, petroleum components detected in one or more of the Lower Saturated Zone wells include GRO, DRO, ORO, and BTEX. Each of these analytes was detected at a concentration greater than the respective RI Cleanup Levels in at least one Lower Saturated Zone well. The extent of GRO and benzene in Upper Saturated Zone groundwater are shown in plan view on Figures 11 and 12. LNAPL is also present at well IW-7 as discussed in more detail in Section 5.3.3, the extent of which is also

shown on those figures. Cross sectional views of the distribution of GRO and LNAPL in Lower Saturated Zone groundwater relative to the associated hydrogeological conditions are included in Figures 9 and 10.

With two exceptions, petroleum hydrocarbons detected at concentrations greater than the respective RI Cleanup Levels in the Lower Saturated Zone in March 2024 are limited to the Property within the immediate vicinity of the initial gasoline release. This distribution pattern is within the area of distribution of petroleum components in groundwater observed during groundwater monitoring activities through 2018 as described in the RI Report and suggests that the current area of dissolved-phase petroleum in the Lower Saturated Zone is similar or smaller than the distribution indicated in the RI Report.

The sample results representing the exceptions to the distribution of petroleum hydrocarbons in groundwater described above are from wells MW-21 and MW-28D, each of which are cross-gradient from the gasoline release area. Combined DRO and ORO were detected in groundwater from these wells at concentrations of 570 and 1,100 µg/L, respectively. The chromatograms for both samples show a defined peak in the ORO range and a subdued shoulder extending into the DRO range, indicative of either a weathered mixture of DRO and ORO products, or a bunker C product. Although groundwater at well MW-21 has a discontinuous history of detections of both DRO and ORO at concentrations less than the MTCA Method A Groundwater Cleanup Level, DRO and ORO have not historically been detected in groundwater at well MW-28D.

Groundwater in well MW-30 exhibited an orange color during purging, and this observation resulted in analysis of DRO and ORO in the groundwater sample from this well with and without silica gel cleanup. The analytical results for the groundwater sample from well MW-30 indicate that DRO and ORO were not detected with or without silica gel cleanup.

5.3.3 Light Nonaqueous-Phase Liquid

The LNAPL sample collected in March 2024 from monitoring well IP-7 contained GRO and BTEX at concentrations indicative of a gasoline-based petroleum product. DRO and ORO were not detected in the LNAPL sample; however, the detection limits for these analytes were elevated because of the high concentration of GRO in the sample. MTBE, EDB, and EDC were not detected in the LNAPL sample. The detected analytes are consistent with a gasoline release that occurred after the mid- to late-2000s, after the historical cessation of the addition of MTBE, EDB, and EDC to most petroleum fuels. The chromatogram pattern

exhibited for the GRO analysis suggests the sample represents a weathered gasoline product. LNAPL analytical results are included in Appendix B.

6.0 DATA VALIDATION

G-Logics performed a data validation evaluation for the laboratory analytical results for the samples collected in March 2024. The evaluation was performed to verify the usability of the laboratory analytical results to meet standard project data quality objectives based on reported conditions and results for sample holding times, preservation, field duplicates, and laboratory method blanks, blank spikes, blank spike duplicates, and surrogate recoveries. Relevant data qualifiers developed based on this evaluation, and from evaluation completed for past analytical result reports are included with the sample analytical data in Table 3. The laboratory report including relevant quality assurance/quality control results for the samples collected in March 2024 is included in Appendix B.

6.1 Holding Time and Preservation

For Ecology Methods NWTPH-Gx and NWTPH-Dx and USEPA Methods 8021B and 8260D, all groundwater samples analyzed met the holding times for extraction and analysis from the date of sample collection. The groundwater samples analyzed by NWTPH-Gx and 8021B were preserved according to the analytical method specifications. The samples were maintained in the laboratory at a temperature of 2 to 6 degrees Celsius.

6.2 Field Duplicates

Field duplicate sample results were within established limits of variability relative to the original samples, except for the ORO result from the Ecology Method NWTPH-Dx analysis for the original and duplicate samples collected from well IP-5. The relative percent difference of the ORO results between the samples was 68%, which is outside the established criteria for duplicate results. The exception is attributed to interference from a high concentration of GRO in the sample. Other quality assurance/quality control data related to this sample were within established limits. As a result of the conditions identified, the DRO and ORO results for the groundwater sample from well IP-5 are flagged as estimated in Table 3.

6.3 Laboratory Method Spikes and Method Spike Duplicates

Spike compounds were also detected at concentrations within established range limits relative to the spike concentrations added, and the spike duplicates results were within established range limits relative to the concentrations detected in the method spike samples.

6.4 Laboratory Method Blanks, Blank Spikes, and Blank Spike Duplicates

Analytes were not detected in the laboratory method blanks, and recovery of spike compounds in blank spikes and blank spike duplicates were within established range limits. Spike compounds were also detected at concentrations within established range limits relative to the spike concentrations added.

6.5 Surrogate Recoveries

Surrogate recoveries for each sample analysis met the laboratory acceptance criteria with two exceptions:

- Surrogate compounds were not recovered at detectable concentrations for the GRO, DRO, and ORO analysis by Ecology Methods NWTPH-Gx and NWTPH-Dx for the LNAPL sample collected from well IP-7 on March 27, 2024, because of the dilution of the sample extract necessary for analysis of the high concentrations of target analytes in the sample. The remainder of data quality assurance/quality control results for this sample were within established limits.

- The surrogate recovery for the field duplicate sample collected from monitoring well IP-5 for the analysis of GRO and BTEX by Ecology Method NWTPH-Gx and USEPA Method 8021B was greater than the established control limits. No explanation for the high surrogate recovery was reported by the laboratory. Since the sample was a field duplicate and not a primary characterization sample and the remainder of the quality assurance/quality control data for the sample were within established ranges, no data qualifiers were established on Table 3 related to this sample.

6.6 Data Validation Conclusions

Based on our review of the analytical data report for the samples submitted for the RI Addendum monitoring effort, the sample results are suitable for their intended use for Site characterization and MTCA compliance evaluation. Where results of the data validation suggest data quality may be compromised within reasonable limits, the affected data have been flagged with qualifiers on Table 3. None of the analytical data developed for this report have been rejected.

7.0 CONCLUSIONS

Groundwater flow conditions in the Upper and Lower Saturated Zones are consistent with conditions observed during previous monitoring events at the Site as described in the RI Report. The petroleum-related contaminants present and the distribution of those petroleum-related contaminants at the Site is consistent with a subgrade gasoline release in about 2003 from product delivery infrastructure near the pump islands at the Property. Evidence has not been identified that indicate that the gasoline release at the Property has or is affecting surface water quality in the Duwamish River.

The distribution of LNAPL has been observed during the most recent monitoring event in March 2024, and monitoring events related to the pilot test completed in 2022 and 2023, and is limited to the vicinity of monitoring well IP-7 in the Lower Saturated Zone. G-Logics has not identified evidence of LNAPL accumulation in the Upper Saturated Zone. Based on the observations of persistent presence of LNAPL at well IP-7 over the last several years, LNAPL has been added to the original list of contaminants of concern at the Site included in the RI Report. The addition of LNAPL to the list of contaminants of concern has been completed in anticipation of the development of the feasibility study, as the remedial alternatives to address LNAPL are somewhat different than those designed to address residual and dissolved petroleum components in soil and groundwater.

Dissolved-phase petroleum components in the Upper and Lower Saturated Zones are consistent with the range of conditions reported in the RI Report and indicate that the extents of petroleum-related groundwater impacts greater than applicable RI Cleanup Levels in both zones are relatively stable over time. Apparent variations in the extent of petroleum in groundwater between this and previous reports appear to be affected by two factors: 1) spatial and temporal variations in relatively low concentrations of benzene and petroleum degradation products in groundwater in patterns similar to distribution variation exhibited by groundwater quality data from prior to 2024, and 2) limitations to the interpretation of results based on the focused well set sampled during the 2024 monitoring program as compared to past evaluations that included monitoring across a larger proportion of the available wells.

Geochemical parameters measured in groundwater, including DO, ORP, and specific conductivity, suggest that the dissolved-phase petroleum constituents in Upper and Lower Saturated Zone groundwater are likely undergoing degradation by biologic processes. The apparent reduction in concentrations of dissolved-phase petroleum hydrocarbons across

relatively short distances from the release source area and accumulated LNAPL area is consistent with evidence of robust biodegradation within the plume.

The DRO and/or ORO detected in March 2024 in the Upper Saturated Zone wells MW-20 and MW-24 are consistent with common spatially and temporally scattered DRO/ORO detected in groundwater from wells across the Site in this and previous monitoring events. Many of these DRO/ORO detections, including the most recent one at well MW-24, are not clearly associated with the gasoline release at the Site. The elimination of the DRO and ORO as part of silica gel cleanup suggests that the DRO and ORO detected in the groundwater from that well are consistent with highly-weathered petroleum products As a worst-case scenario, the DRO and ORO detected in March 2024 at wells MW-20 and MW-24 represent the current downgradient limit in the Upper Saturated Zone of detectable petroleum hydrocarbons released at the Property. This is evidenced by the low concentrations of petroleum hydrocarbons detected at these wells through time and the temporal and spatial inconsistency of those detections. Additional evaluation may be needed during future groundwater monitoring events to confirm whether the DRO and ORO detections at wells MW-20 and MW-24 represent naturally occurring organics or weathered petroleum products.

DRO and ORO in the Lower Saturated Zone at wells MW-21 and MW-28D represent groundwater that is not directly downgradient from the area of petroleum release and distribution at the Site and groundwater quality data from monitoring wells MW-19 and MW-24D indicate that these detections are separated from the area of gasoline-related contamination that defines the Site. The source of the DRO and ORO detections cannot be confirmed based on the existing data set, and evaluation of distribution and potential source of these detections using the current data set is somewhat confounded by the temporally and spatially separated detections of DRO and ORO that are common in the groundwater monitoring history of the Lower Saturated Zone at the Site. Additional evaluation is needed during future groundwater monitoring events to confirm whether the DRO and ORO detections at wells MW-21 and MW-28D represent this pattern of scattered anomalous DRO/ORO detections in the Lower Saturated Zone, or whether they represent naturally occurring organics and/or the distal, weathered edges of a petroleum product release. However, the data gap that may be represented by these detections does not represent an issue that could significantly affect the development of a feasibility study for the gasoline release at the Site, in the opinion of G-Logics.

With the exception of the recommended addition of LNAPL as a contaminant of concern, it is the opinion of G-Logics that the findings outlined in this report help refine but do not significantly change the findings and interpretations in the RI Report. It is the opinion of G-Logics that with this submittal, the RI for the Site is complete and the RI information is appropriate to support the development of a feasibility study for the Site.

8.0 LIMITATIONS

The scope of work on this project was presented in the workplan for this investigation and subsequently approved by RPNP Corporation and Ecology. Other activities not specifically included in the presented scope of work in the workplan, correspondence, or this report are excluded and are therefore not part of our services.

Land use, site conditions (both on-Site and off-Site), and other factors will change over time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date groundwater and sampling event performed at the Site in March 2024.

The property owner is solely responsible for notifying all governmental agencies and the public at large of the existence, release, treatment, or disposal of any hazardous materials identified at the project site. G-Logics assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

This report has been prepared for the sole use of our client and Ecology. The scope of services performed during this exploration may not be appropriate for the needs of other parties. Re-use of this document or the findings, conclusions, or recommendations presented herein, are at the sole risk of said party(ies). Our client and regulatory agencies may also make additional copies of this document for their internal and public use, or as required by law. All other users of this document must acknowledge our copyright and indicate that permission to use has been received from G-Logics and our Client. Any party other than our client who would like to use this report shall notify G-Logics of such intended use by executing the “Permission and Conditions for Use and Copying” contained in this document. Based on the intended use of the report, G-Logics may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements will release G-Logics from any liability resulting from the use of this report by any unauthorized party.

9.0 REFERENCES

G-Logics. 2020. *Remedial Investigation Report, Boeing Field Chevron, 10805 East Marginal Way South, Tukwila, Washington 98168*. October 7.

G-Logics. 2023. *Final Groundwater Monitoring and Sampling Workplan, Boeing Field Chevron, 10805 East Marginal Way South, Tukwila, Washington 98168*. December 6.

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Troost, K.G., D.B. Booth, A.P. Wisher, and S.A. Shimel. 2005. *The Geologic Map of Seattle—a Progress Report.* USGS Open-File Report 2005-1252.

Washington State Department of Ecology. 2004. *Implementation Memorandum #4-Determining Compliance with Method A Cleanup Levels for Diesel and Heavy Oil*. June 17.

FIGURES

TABLES

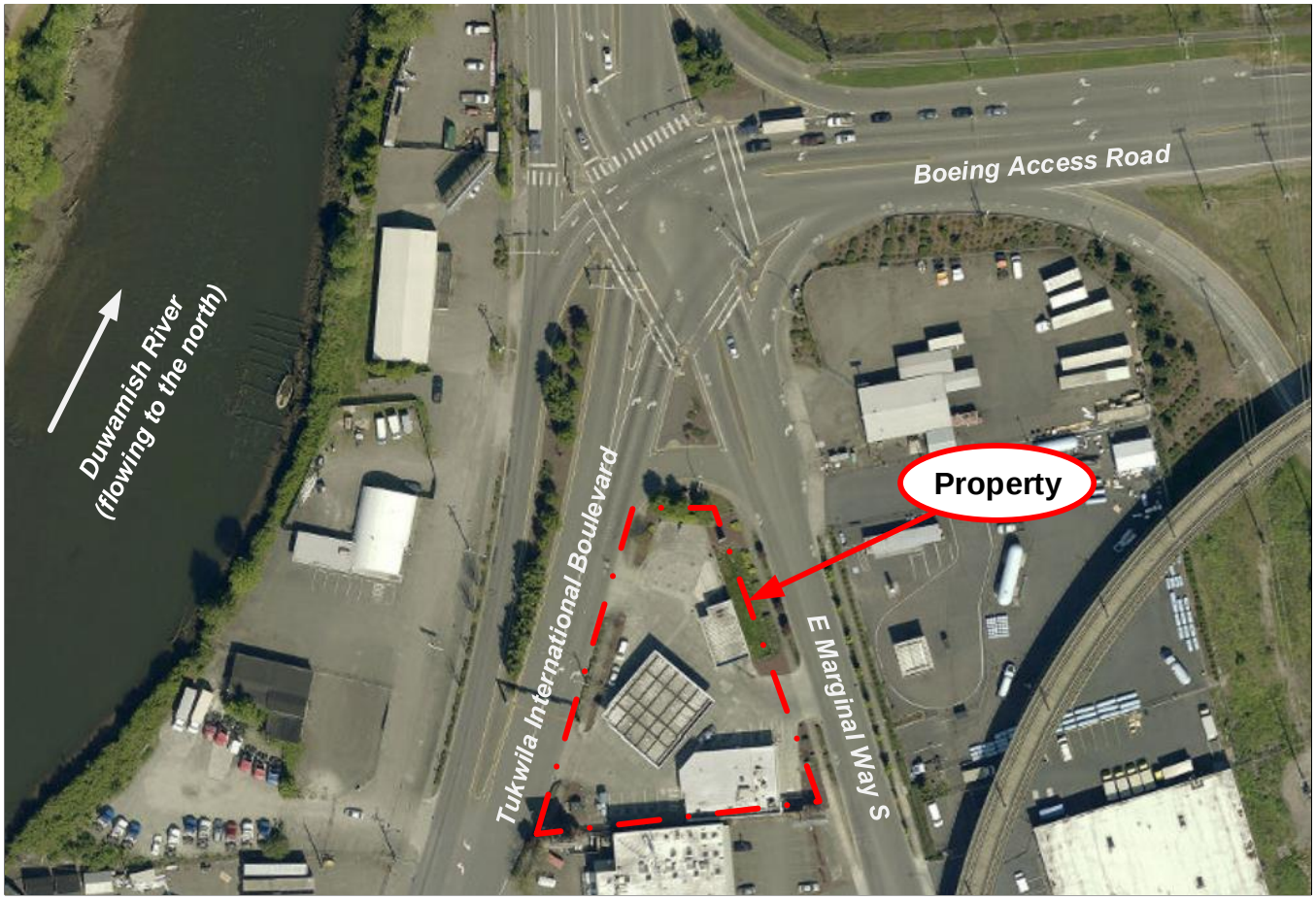
APPENDIX A

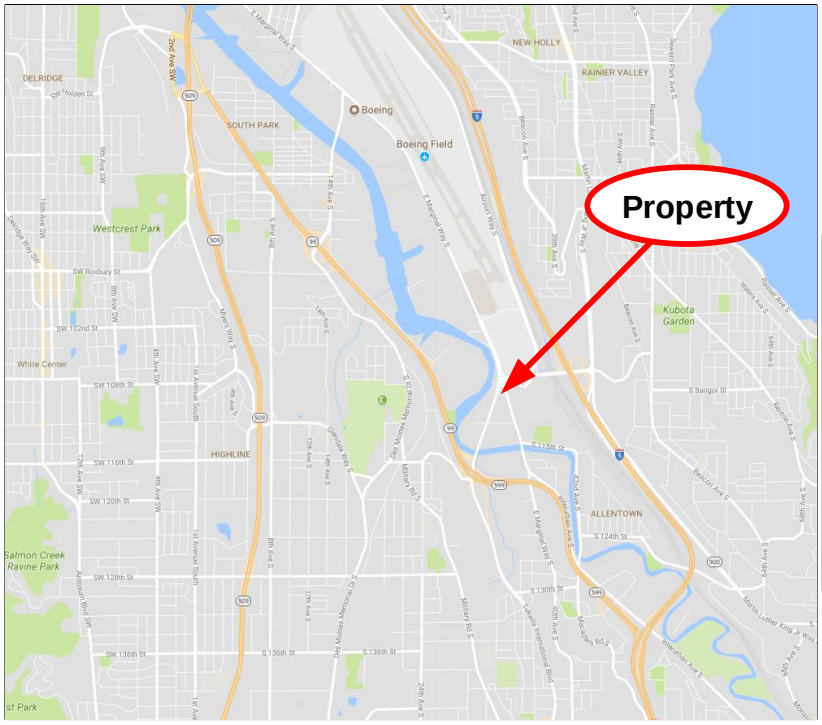
MARCH 2024 GROUNDWATER MONITORING DATA FORMS

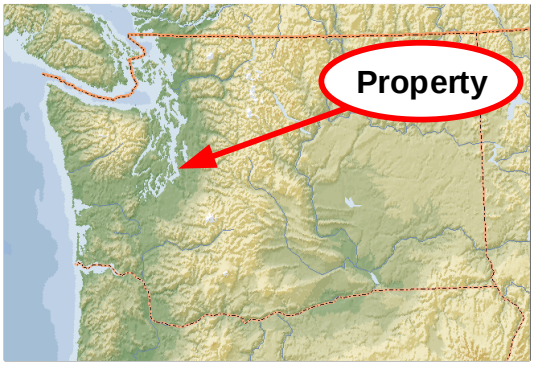
APPENDIX B

ANALYTICAL LABORATORY REPORTS

FIGURES







N

Project File: 01-0410-S F1_tlq_ama_tlq.vsdx

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Property Location
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure
1

Mapping Reference: Delorme, King County iMap, and Google Maps

Legend

- MW-22 — Monitoring Well
- 15k Gasoline — Current UST Capacity (in gallons), Contents, and Approximate Location.
- Property Boundary
- Utility Trench Locations, Evaluated as Preferential Pathways
- A — A' — Cross Section Lines (see Figures 11 and 12)

Note: Background Image (grayed areas) indicates current station and site features

East Marginal Way South

Tukwila International Boulevard

15k Dual Compartment Gasoline/Diesel

15k Gasoline

10k Gasoline

Car Wash

Convenience Store

Fuel-Dispenser Canopy

Food-Manufacturing Facility

MW-22
MW-23
MW-24
MW-24D
MW-25
MW-26S
MW-26D
MW-27S
MW-27D
MW-28S
MW-28D
MW-29S
MW-29D
MW-30
MW-18
MW-19
MW-20
MW-21
TW-1
TW-2
TW-3
TW-4
TW-5
SVE-1
AS-1
AS-2
IP-3
IP-4
IP-5
IP-6
IP-7

A
A'
B
B'

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0 ft. 24 ft. 40 ft. 80 ft.

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Monitoring Well Locations
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 2

Project File: 01-0410-S F2_tlq_tlq_tlq_tlq_tlq_tlq_ama_tlq_tlq.vsdx

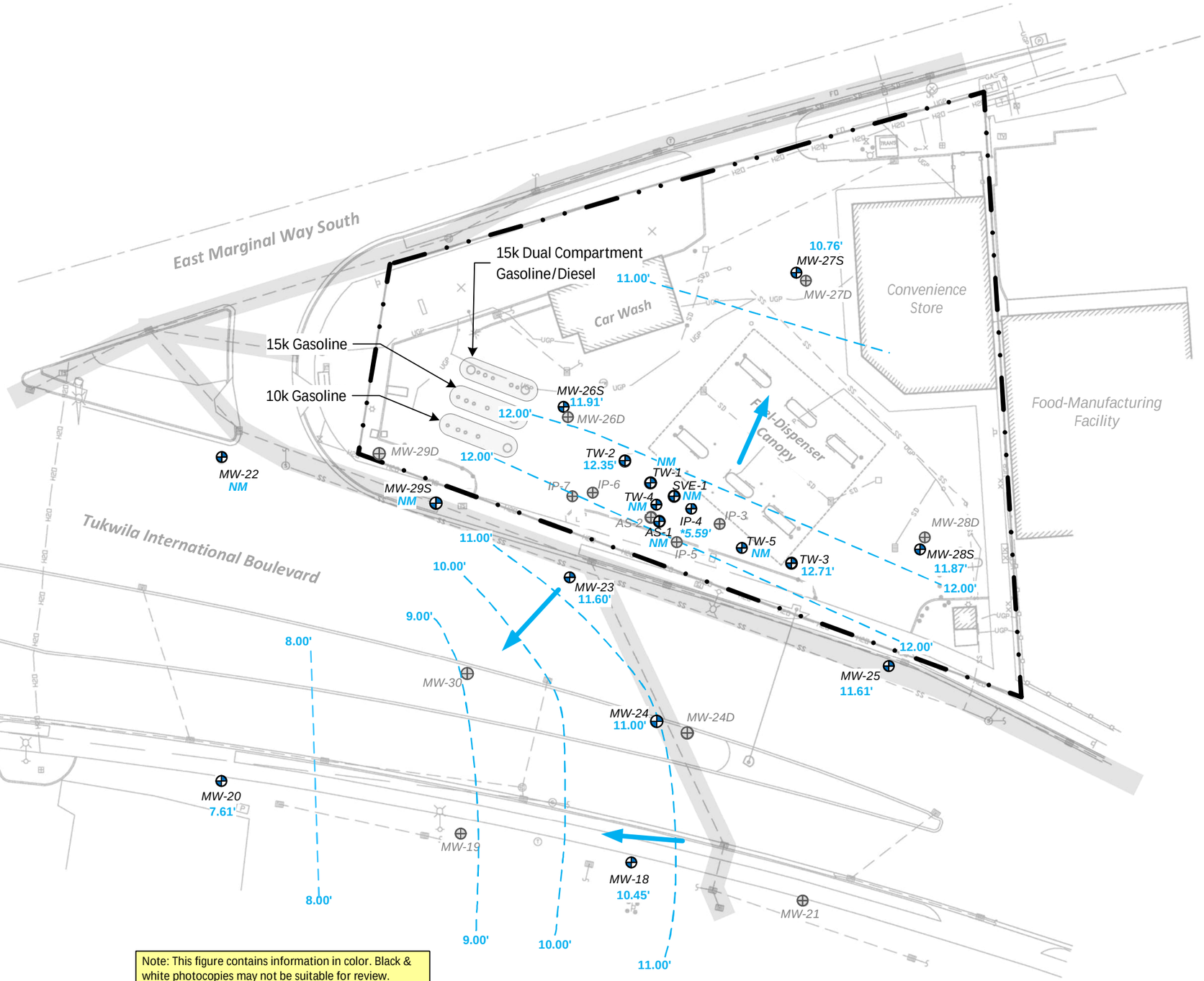
Mapping References: G-Logics Remedial Investigation Report.

Legend

MW-22	Upper Saturated Zone Monitoring Well
MW-26D	Lower Saturated Zone Monitoring Well
15k Gasoline	Current Underground Storage Tank Capacity (in gallons), Contents, and Approximate Location.
	Property Boundary
	Direction of Groundwater Flow
	Groundwater Elevation Contours
8.00'	Groundwater Elevation in Feet Relative to NAVD 88 Vertical Datum
NM	Not Measured

Notes:

- The elevation of IP-4 was not used to calculate groundwater contours, see text for explanation.



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0 ft. 24 ft. 40 ft. 80 ft.

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Upper Saturated Zone Groundwater Elevations - March 27, 2024
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

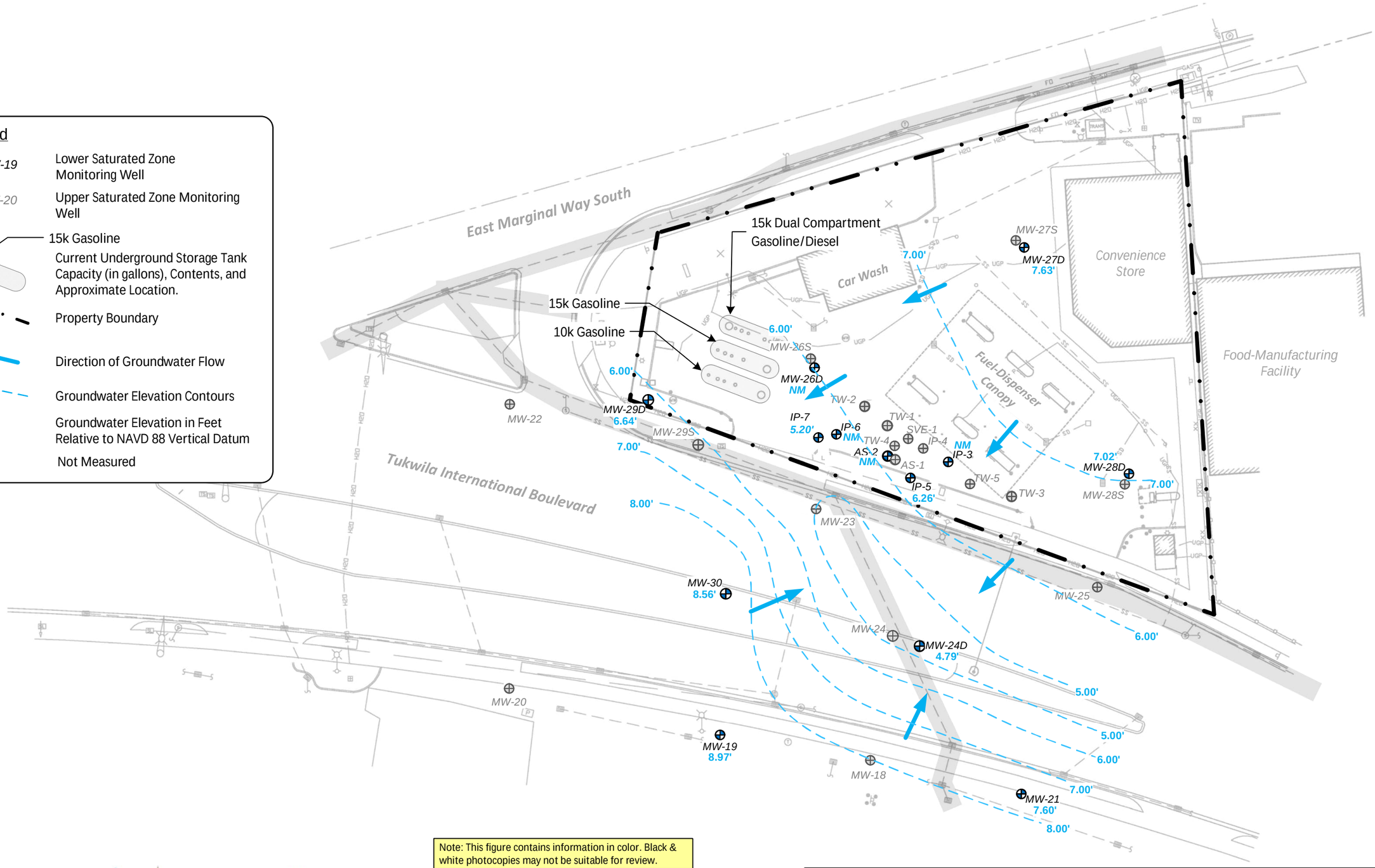
Figure 3

Project File: 01-0410-S F3_USZ contours_Final_ma_tlq_tlq_ama_tlq_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

MW-19	Lower Saturated Zone Monitoring Well
MW-20	Upper Saturated Zone Monitoring Well
15k Gasoline	Current Underground Storage Tank Capacity (in gallons), Contents, and Approximate Location.
	Property Boundary
	Direction of Groundwater Flow
	Groundwater Elevation Contours
8.00'	Groundwater Elevation in Feet Relative to NAVD 88 Vertical Datum
NM	Not Measured



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0 ft. 24 ft. 40 ft. 80 ft.

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Lower Saturated Zone Groundwater Elevations - March 27, 2024
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 4

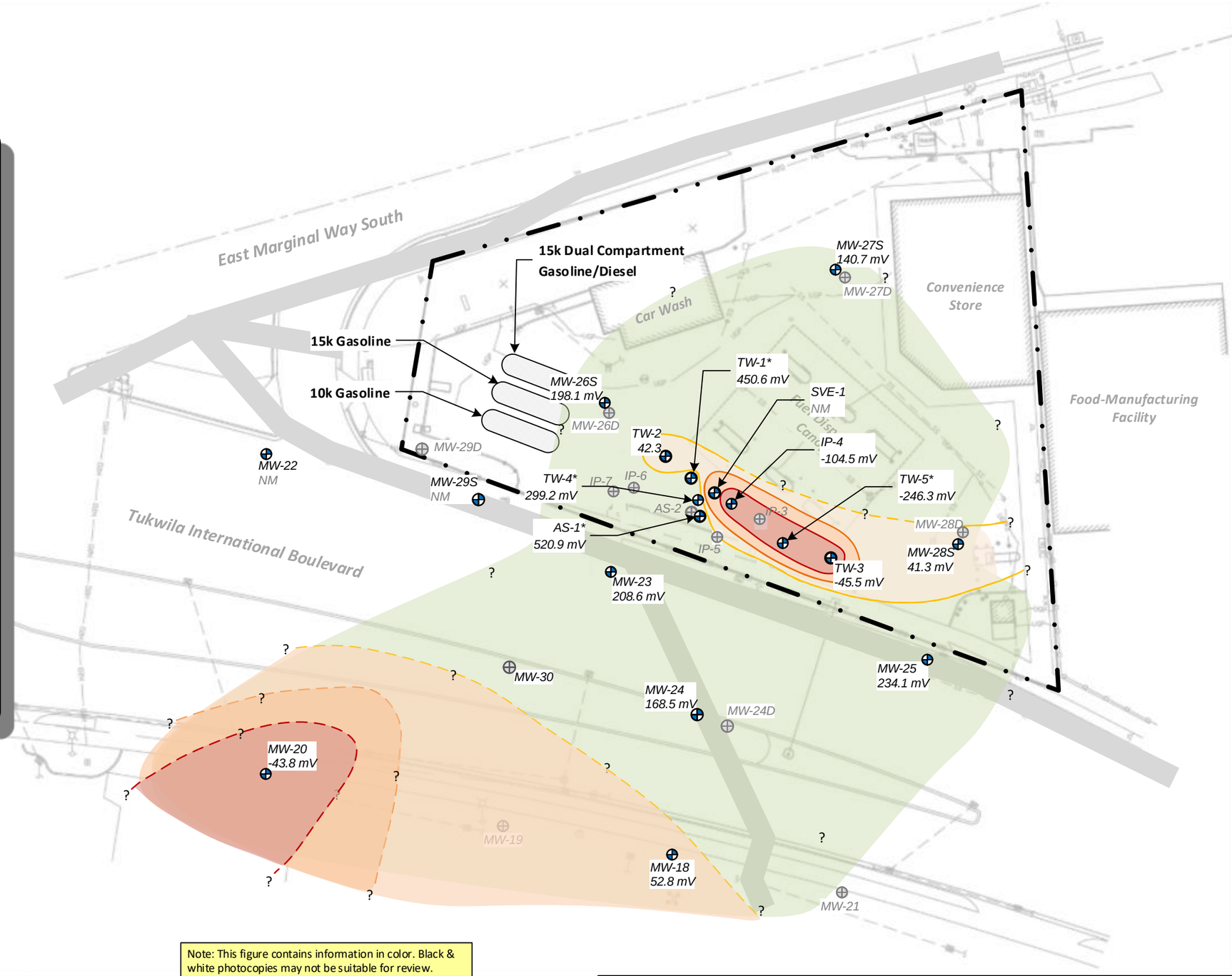
Project File: 01-0410-S F4_LSZ contours_Final_ma_tlq_tlq_ama_tlq_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

- MW-18 — Upper Saturated Zone Monitoring Well
- MW-19 — Lower Saturated Zone Monitoring Well
- 15k Gasoline — Current UST Capacity (in gallons), Contents, and Approximate Location.
- Property Boundary
- Oxidation-Reduction Potential (ORP) Greater than +100 mV
- ORP Between +10 and +100 mV (Line Dashed where Inferred)
- ORP Between -5 and +10 mV (Line Dashed where Inferred)
- ORP -5 to -200 mV
- NM — Not Measured

Notes:
* Denotes data collected July 2023
mV Millivolts



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0.0 in. 288.0 in. 480.0 in. 960.0 in.

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Oxidation-Reduction Potential in Upper Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 5

Project File: 01-0410-S F5_USZ ORP in GW_Final_ma_tlq_tlq_tlq_ama_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

- MW-24D — Lower Saturated Zone Monitoring Well
- MW-22 — Upper Saturated Zone Monitoring Well
- 15k Gasoline — Current UST Capacity (in gallons), Contents, and Approximate Location.
- Property Boundary
- Oxidation-Reduction Potential (ORP) Greater than +50 mV (Line Dashed where Inferred)
- ORP Between +10 and +50 mV (Line Dashed where Inferred)
- ORP Between -1 and -10 mV
- ORP -10 to -100 mV
- NM — Not Measured

Notes:
* Denotes data collected July 2023
mV Millivolts

East Marginal Way South

Tukwila International Boulevard

15k Dual Compartment Gasoline/Diesel

15k Gasoline

10k Gasoline

Car Wash

Convenience Store

Food-Manufacturing Facility

Fuel Dispenser Canopy

MW-27S

MW-27D
3.8 mV

MW-26S

MW-26D
NM

MW-29D
15.0 mV

MW-29S

MW-22

TW-2

IP-6
NM

TW-1

SVE-1

TW-4

IP-4

IP-3*
237.2 mV

IP-7*
398.6 mV

AS-2

AS-1

NM

IP-5
-100.3 mV

TW-5

TW-3

MW-28D
63.2 mV

MW-28S

MW-23

MW-25

MW-30
-7.0 mV

MW-24

MW-24D
-75.0 mV

MW-20

MW-19
-9.0 mV

MW-18

MW-21
-63.7 mV

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0.0 in. 24 ft. 40 ft. 80 ft.

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Oxidation-Reduction Potential in Lower Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure
6

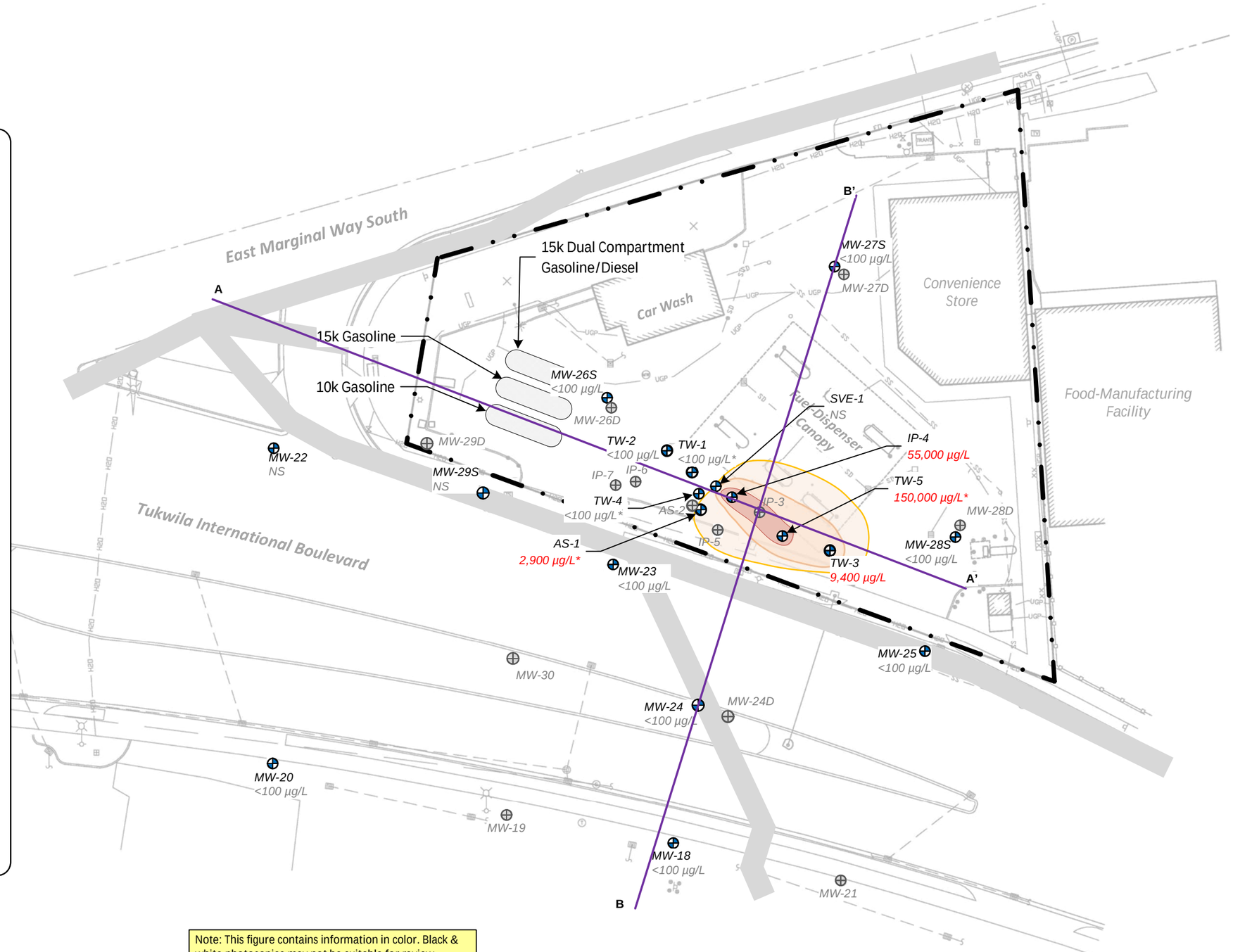
Project File: 01-0410-S F6_LSZ ORP in GW_Final_ma_tlq_tlq_ama_tlq_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

MW-18	Upper Saturated Zone Monitoring Well
MW-19	Lower Saturated Zone Monitoring Well
15k Gasoline	Current Underground Storage Tank Capacity (in gallons), Contents, and Approximate Location.
	Property Boundary
	Utility Trench Locations, Evaluated as Preferential Pathways
	Gasoline Range Organics (GRO) Detected Between 800 and 5,000 µg/L
	GRO Detected Between 5,000 and 50,000 µ g/L
	GRO Detected at Greater than 50,000 µg/L
MW-20 <100 µg/L	GRO Not Detected Greater Than Laboratory Reporting Limit
TW-3 9,400 µg/L	GRO Detected Greater Than Cleanup Level of 1,000 µg/L
MW-29S NS	Not Sampled
A — A'	Cross Section Lines (see Figures 11 and 12)

Notes:
* Denotes data collected July 2023
µg/L Micrograms per Liter



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0.0 in. 24 ft. 40 ft. 80 ft.

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Gasoline Range Organics in Upper Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 7

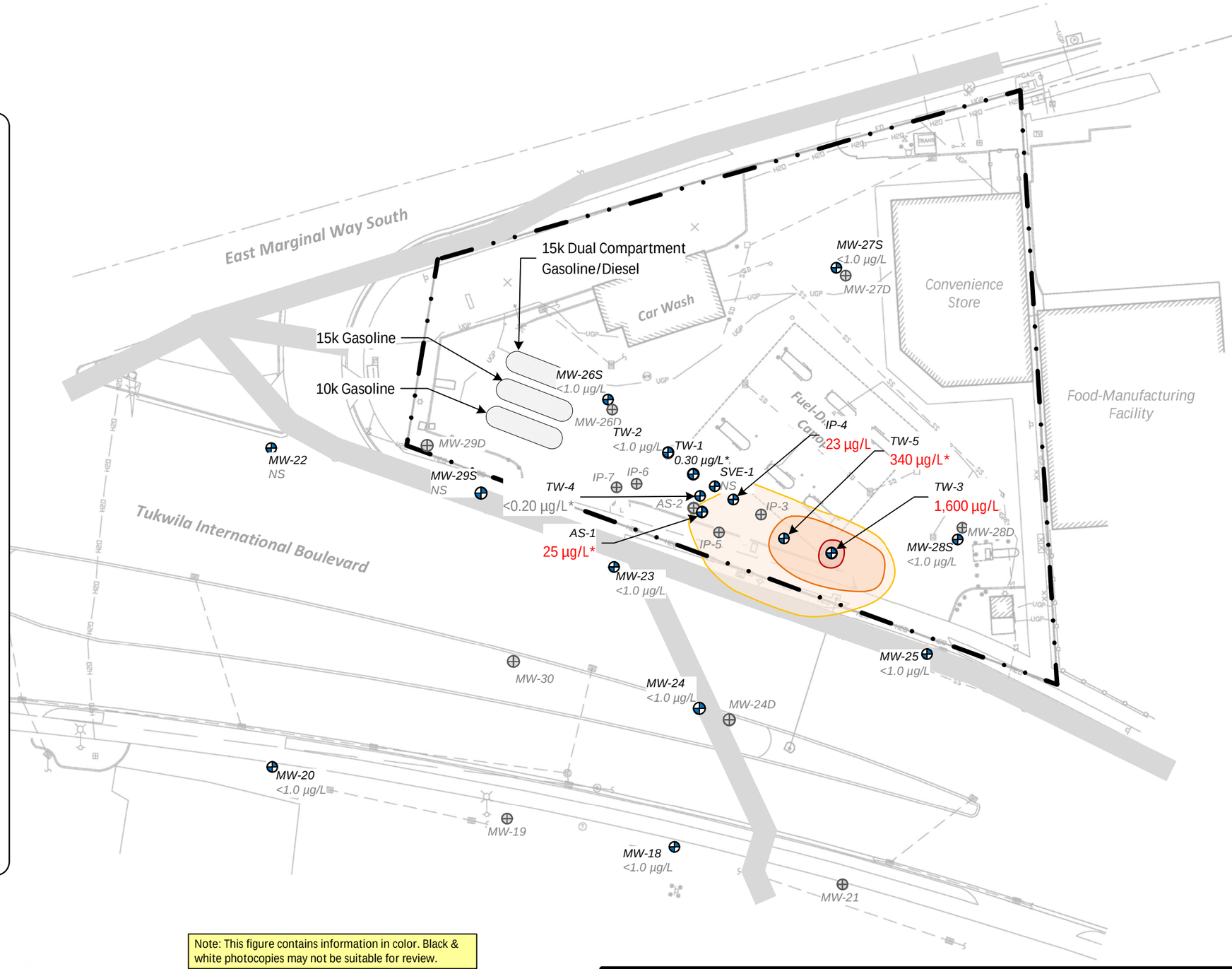
Project File: 01-0410-S F7_USZ GRO in GW_Final_ma_tlq_ama_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

MW-18	Upper Saturated Zone Monitoring Well
MW-19	Lower Saturated Zone Monitoring Well
15k Gasoline	Current UST Capacity (in gallons), Contents, and Approximate Location.
	Property Boundary
	Utility Trench Locations, Evaluated as Preferential Pathways
	Benzene Detected Between 1.6 and 100 µg/L
	Benzene Detected Between 100 and 1,000 µ g/L
	Benzene Detected at Greater than 1,000 µg/L
MW-20 <1.0 µg/L	Benzene Not Detected Greater Than Laboratory Reporting Limit
MW-30 2.1 µg/L	Benzene Detected Less Than Cleanup Level of 5 µg/L
TW-3 1,600 µg/L	Benzene Detected Greater Than Cleanup Level of 5 µg/L
MW-22 NS	Not Sampled

Notes:
* Denotes data collected July 2023
µg/L Micrograms per Liter



Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'

0.0 in. 24 ft. 40 ft. 80 ft.

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Benzene in Upper Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 8

Project File: 01-0410-S F8_USZ Benzene in GW_Final-ma_tlq_tlq_ama_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

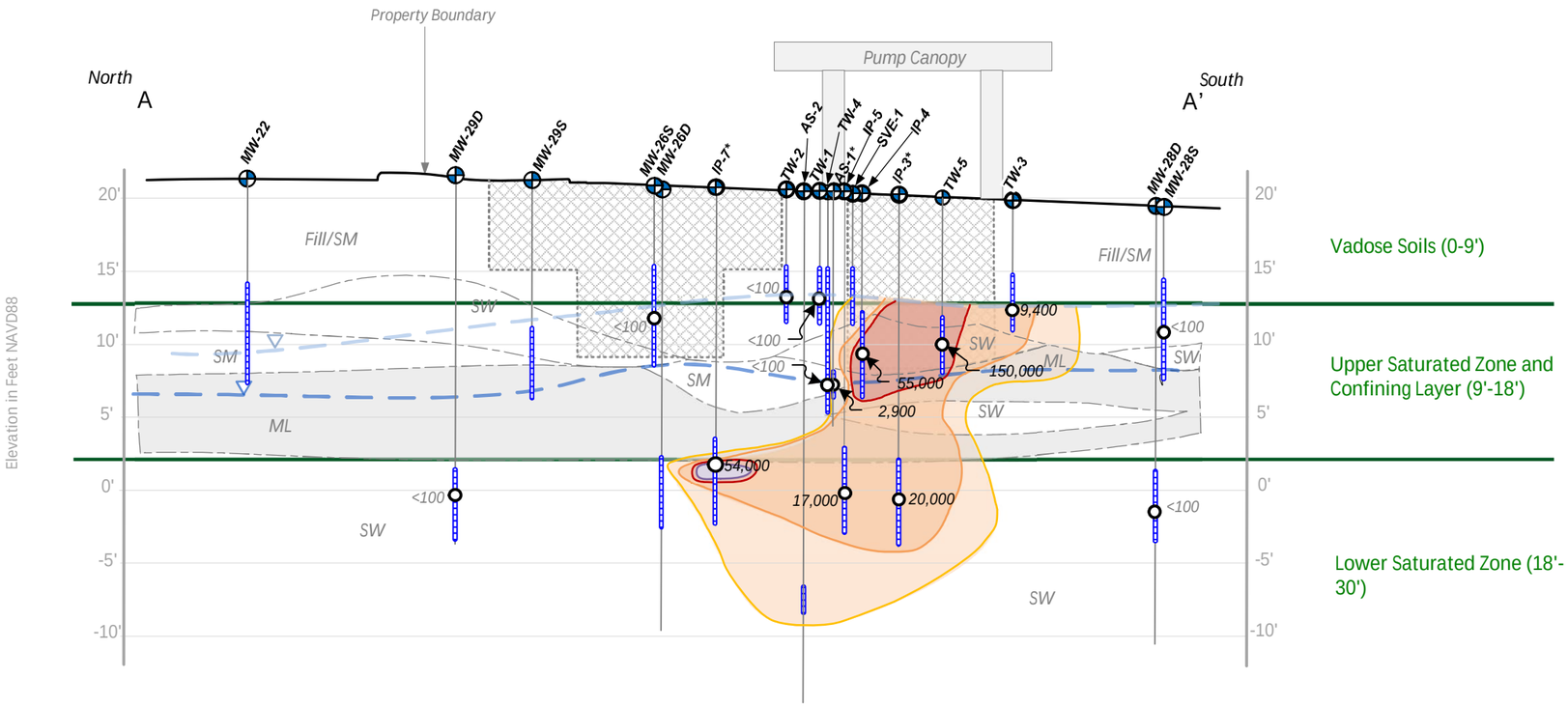
- Gasoline Range Organics (GRO) Detected in Groundwater Between 800 and 5,000 micrograms per liter (µg/L)
- GRO Detected in Groundwater Between 5,000 and 50,000 µg/L
- GRO Detected in Groundwater at Greater than 50,000/1,000 µg/L
- Area of Light Non-Aqueous Phase Liquid
- Potentiometric Surface of Upper Saturated Zone (March 2024)
- Potentiometric Surface of Lower Saturated Zone (March 2024)
- Geologic Contact
- Approximate Extent of Historical Remedial Excavations/Fill
- Monitoring Well
- Groundwater Sample
- GRO Detected at Concentration Greater than Laboratory Detection Limit, in µg/L
- Well Screen Interval

ML	Silt
MTCA	Model Toxics Control Act
SM	Silty Sand
SW	Sand, Well-Graded

Notes:

Groundwater analytical results from samples collected July 2023 and March 2024

* Denotes groundwater sample collected July 2023



Note: Analytical results are summarized in Table 2. Interpreted contaminant contours are based on available analytical data.

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Vertical Drawing Scale: 1" = 10'
4X Vertical Exaggeration

Approximate Horizontal Drawing Scale: 1" = 40'
0.0 in. 288.0 in. 480.0 in. 960.0 in.

Cross Section A-A'

Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 9

Project File: 01-0410-S F9 A-A_Final_ma_tlq_tlq_tlq_ama_tlq_tlq_tlq_tlq.vsd

Mapping References: PLS Survey 2016, G-Logics Field Measurements, Compiled Data.

Legend

Gasoline Range Organics (GRO) Detected in Groundwater Between 800 and 5,000 micrograms per liter (µg/L)

GRO Detected in Groundwater Between 5,000 and 50,000

GRO Detected in Groundwater at Greater than 50,000 µg/L

Potentiometric Surface of Upper Saturated Zone (March 2024)

Potentiometric Surface of Lower Saturated Zone Relative (March 2024)

Geologic Contact

Approximate Extent of Historical Remedial Excavations/Fill

Monitoring Well

Groundwater Sample

GRO and/or Bz Detected at Concentration Greater than Laboratory Detection Limit, in µg/L

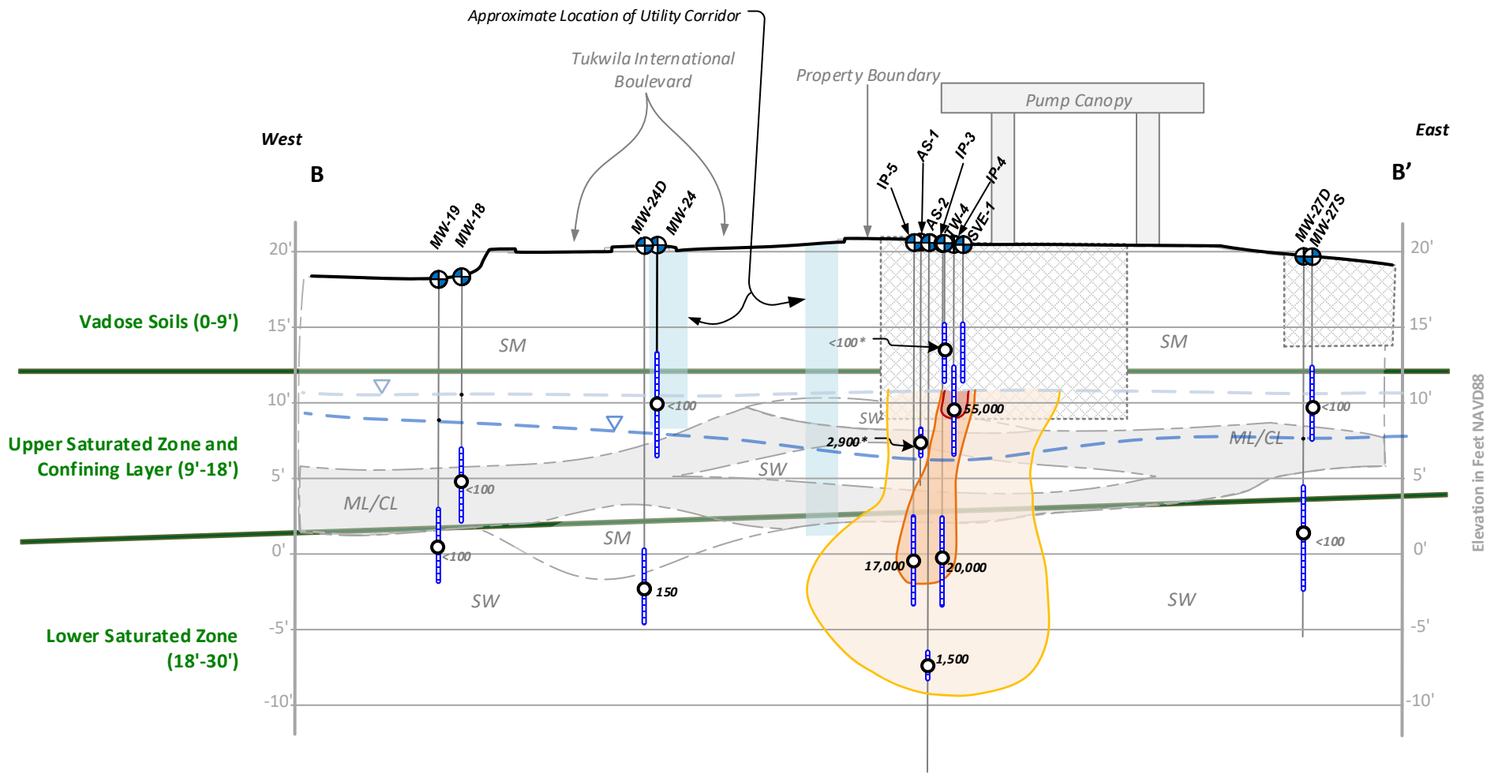
Well Screen Interval

CL	Clay
ML	Silt
MTCA	Model Toxics Control Act
SM	Silty Sand
SW	Sand, Well-Graded

Notes:

Groundwater analytical results from samples collected July 2023 and March 2024

* Denotes groundwater sample collected July 2023



Note: Analytical results are summarized in Table 2. Interpreted contaminant contours are based on available analytical data.

Approximate Vertical Drawing Scale: 1" = 10'
4X Vertical Exaggeration

Approximate Horizontal Drawing Scale: 1" = 40'
0 ft. 24 ft. 40 ft. 80 ft.

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Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Cross Section B-B'
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 10

Project File: 01-0410-S F10_B-B_Final_ma_tlq_tlq_ama_tlq_tlq_tlq.vsdx

Mapping References: PLS Survey 2016, G-Logics Field Measurements, Compiled Data.

Legend

- MW-19 — Lower Saturated Zone Monitoring Well
- MW-18 — Upper Saturated Zone Monitoring Well
- 15k Gasoline — Current UST Capacity (in gallons), Contents, and Approximate Location.
- Property Boundary
- Utility Trench Locations, Evaluated as Preferential Pathways
- Gasoline Range Organics (GRO) Detected Between 800 and 10,000 µg/L
- GRO Detected Between 10,000 and 50,000 µg/L
- GRO Detected at Greater than 50,000 µg/L
- Light Non-Aqueous Phase Liquid
- MW-19 <100 µg/L — GRO Not Detected Greater Than Laboratory Reporting Limit
- MW-24D 150 µg/L — GRO Detected Greater Than Cleanup Level of 1,000 µg/L
- IP-5 17,000 µg/L — GRO Detected Greater Than Cleanup Level of 1,000 µg/L
- IP-6 NS — Not Sampled
- A — A' — Cross Section Lines (see Figures 11 and 12)

Notes:
* Denotes data collected July 2023
µg/L Micrograms per Liter

East Marginal Way South
Tukwila International Boulevard
Car Wash
Convenience Store
Fuel-Dispenser Canopy
Food-Manufacturing Facility
15k Dual Compartment Gasoline/Diesel
15k Gasoline
10k Gasoline
A
A'
B
B'
MW-22
MW-29D <100 µg/L
MW-29S
MW-26S
MW-26D NS
TW-2
IP-6 NS
TW-1
SVE-1
TW-4
IP-4
IP-3 20,000 µg/L*
AS-2 NS
AS-1
IP-7 54,000 µg/L*
IP-5 17,000 µg/L
TW-5
TW-3
MW-27S
MW-27D <100 µg/L
MW-28D <100 µg/L
MW-28S
MW-23
MW-30 <100 µg/L
MW-25
MW-24
MW-24D 150 µg/L
MW-20
MW-19 <100 µg/L
MW-18
MW-21 <100 µg/L

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'
0.0 in. 24 ft. 40 ft. 80 ft.

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Gasoline Range Organics in Lower Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 11

Project File: 01-0410-S F11_LSZ GRO in GW_Final_ma_tlq_tlq_ama_tlq_tlq_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

Legend

- MW-19 — Lower Saturated Zone Monitoring Well
- MW-18 — Upper Saturated Zone Monitoring Well
- 15k Gasoline — Current UST Capacity (in gallons), Contents, and Approximate Location.
- Property Boundary
- Utility Trench Locations, Evaluated as Preferential Pathways
- Benzene Detected Between 1.6 and 100 µg/L
- Benzene Detected Between 100 and 1,000 µg/L
- Benzene Detected at Greater than 1,000 µg/L
- Light Non-Aqueous Phase Liquid
- MW-29D <1.0 µg/L — Benzene Not Detected Greater Than Laboratory Detection Limit
- MW-27D 2.2 µg/L — Benzene Detected Less Than Cleanup Level of 5 µg/L
- IP-5 1,400 µg/L — Benzene Detected Greater Than Cleanup Level of 5 µg/L
- MW-22 NS — Not Sampled

Notes:
* Denotes data collected July 2023
µg/L Micrograms per Liter

East Marginal Way South
Tukwila International Boulevard
Car Wash
Convenience Store
Food-Manufacturing Facility
Fuel-Dispenser Canopy
15k Dual Compartment Gasoline/Diesel
15k Gasoline
10k Gasoline
MW-26S
MW-26D NS
MW-27S
MW-27D 2.2 µg/L
MW-29D <1.0 µg/L
MW-29S
MW-22 NS
TW-2
IP-6 NS
TW-1
SVE-1
TW-4
IP-4
IP-3 1,100 µg/L*
AS-2 NS
AS-1
TW-5
TW-3
MW-28D <1.0 µg/L
MW-28S
IP-7 840 µg/L*
MW-23
IP-5 1,400 µg/L
MW-30 2.1 µg/L
MW-25
MW-24
MW-24D 1.4 µg/L
MW-20
MW-19 <1.0 µg/L
MW-18
MW-21 <1.0 µg/L

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

Approximate Drawing Scale: 1" = 40'
0.0 in. 24 ft. 40 ft. 80 ft.

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Benzene in Lower Saturated Zone Groundwater
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington

Figure 12

Project File: 01-0410-S F12_LSZ Benzene in GW_Final_ma_tlq_ama_tlq_tlq_tlq_tlq_tlq_tlq.vsdx

Mapping References: G-Logics Remedial Investigation Report.

TABLES

TABLE 1

Well Construction Details and Liquid Level Measurements

Boeing Field Chevron

10805 East Marginal Way

Tukwila, Washington

Monitoring Well	Well Installation Date	Top of Well Casing Elevation (feet relative to datum)[1]	Depth to Top of Screen (feet below ground surface)	Depth to Bottom of Screen (feet below ground surface)	Well Diameter (inches)	Date Measured	Depth to Water (feet below top of casing)	Depth to Product (feet below top of casing)	Product Thickness (feet)	Calculated Groundwater Elevation[2] (feet relative to datum)	Comments
Upper Saturated Zone Wells											
MW-18	4/16/08	18.22	11	16	1	11/30/2016	7.88	ND	0.00	10.34	---
						3/23/2017	6.96	ND	0.00	11.26	---
						7/27/2017	8.96	ND	0.00	9.26	---
						10/5/2017	9.80	NM	---	8.42	---
						1/16/2018	7.79	NM	---	10.43	---
						5/25/2018	8.62	NM	---	9.60	---
						8/23/2018	10.40	NM	---	7.82	---
						11/27/2018	9.12	NM	---	9.10	---
						3/27/2024	7.77	NM	---	10.45	---
MW-20	4/16/08	18.71	15	20	1	11/30/2016	11.43	ND	0.00	7.28	
						3/23/2017	11.89	ND	0.00	6.82	---
						7/27/2017	12.35	ND	0.00	6.36	---
						10/5/2017	14.16	NM	---	4.55	---
						8/23/2018	15.53	NM	---	3.18	---
						11/27/2018	10.21	NM	---	8.50	---
						3/27/2024	11.10	NM	---	7.61	---
MW-22	11/17/16	21.14	7	14	1	12/6/2016	7.09	ND	0.00	14.05	---
						3/23/2017	8.92	ND	0.00	12.22	---
						7/26/2017	10.55	ND	0.00	10.59	---
						10/5/2017	11.16	NM	---	9.98	---
						1/12/2018	9.56	NM	---	11.58	---
						8/23/2018	11.06	NM	---	10.08	---
						11/27/2018	11.98	NM	---	9.16	---
MW-23	11/17/16	20.86	6	16	2	12/6/2016	10.30	ND	0.00	10.56	---
						3/23/2017	8.63	ND	0.00	12.23	---
						7/26/2017	10.36	ND	0.00	10.50	---
						10/5/2017	11.08	NM	---	9.78	---
						1/12/2018	9.38	NM	---	11.48	---
						5/25/2018	10.04	NM	---	10.82	---
						8/23/2018	10.73	NM	---	10.13	---
						11/27/2018	10.49	NM	---	10.37	---
						3/27/2024	9.26	NM	---	11.60	---
MW-24	11/24/16	20.26	9	14	1	12/6/2016	10.34	ND	0.00	9.92	---
						3/23/2017	8.73	ND	0.00	11.53	---
						7/26/2017	10.36	ND	0.00	9.90	---
						10/5/2017	11.69	NM	---	8.57	---
						1/11/2018	8.89	NM	---	11.37	---
						8/23/2018	11.35	NM	---	8.91	---
						11/27/2018	9.19	NM	---	11.07	---
						3/27/2024	9.26	NM	---	11.00	---
MW-25	11/19/16	19.78	9	14	1	12/6/2016	8.94	ND	0.00	10.84	---
						3/23/2017	7.38	ND	0.00	12.40	---
						7/26/2017	9.31	ND	0.00	10.47	---
						10/5/2017	10.33	NM	---	9.45	---
						1/12/2018	8.32	NM	---	11.46	---
						8/23/2018	9.93	NM	---	9.85	---
						11/27/2018	9.68	NM	---	10.10	---
						3/27/2024	8.17	NM	---	11.61	---
MW-26S	11/21/16	19.48	7	12	2	11/30/2016	8.09	ND	0.00	11.39	---
						3/23/2017	6.92	ND	0.00	12.56	---
						7/26/2017	8.98	ND	0.00	10.50	---
						10/5/2017	9.57	NM	---	9.91	---
						1/11/2018	7.27	NM	---	12.21	---
						8/23/2018	8.80	NM	---	10.68	---
						11/27/2018	7.85	NM	---	11.63	---
						3/27/2024	7.57	ND	0.00	11.91	---
MW-27S	11/21/16	19.76	7	12	2	11/28/2016	8.25	ND	0.00	11.51	---
						3/23/2017	7.23	ND	0.00	12.53	---
						7/26/2017	9.08	ND	0.00	10.68	---
						10/5/2017	9.68	NM	---	10.08	---
						1/16/2018	8.05	NM	---	11.71	---
						5/25/2018	8.27	NM	---	11.49	---
						8/23/2018	7.50	NM	---	12.26	---
						11/27/2018	8.92	NM	---	10.84	---
						3/27/2024	9.00	ND	0.00	10.76	---
MW-28S	11/18/16	19.34	5	12	2	11/28/2016	8.14	ND	0.00	11.20	---
						3/23/2017	6.66	ND	0.00	12.68	---
						7/26/2017	8.54	ND	0.00	10.80	---
						10/5/2017	9.51	NM	---	9.83	---
						1/11/2018	7.91	NM	---	11.43	---
						8/23/2018	9.03	NM	---	10.31	---
						11/27/2018	8.75	NM	---	10.59	---
						3/27/2024	7.47	ND	0.00	11.87	---
MW-29S	1/11/18	21.53	10	15	1	1/16/2018	9.78	NM	---	11.75	---
						5/29/2018	11.01	NM	---	10.52	---
						11/27/2018	10.73	NM	---	10.80	---
IP-4	4/19/06	20.49	8	16	3	5/2/2006	10.29	ND	0.07	10.20	---
						5/8/2006	10.32	ND	0.00	10.17	---
						6/13/2006	10.35	ND	0.00	10.14	---
						6/19/2006	10.48	ND	0.00	10.01	---
						10/13/2006	13.91	11.69	2.22	8.22	---
						1/4/2007	9.65	ND	0.00	10.84	---
						1/25/2007	9.97	ND	0.00	10.52	---
						2/22/2007	10.12	ND	0.00	10.37	---
						3/7/2007	10.13	ND	0.00	10.36	---
						5/1/2007	10.71	ND	0.00	9.78	---
						10/1/2007	11.64	ND	0.00	8.85	---
						2/25/2008	10.40	10.40	TR	10.09	Trace product observed but thickness not measureable
						2/26/2008	10.28	ND	0.00	10.21	---
						2/28/2008	10.27	ND	0.00	10.22	---
						3/27/2008	10.82	ND	0.00	9.67	Product level measured after removing absorbent
						4/9/2008	10.93	ND	0.00	9.56	Product level measured after removing absorbent
						4/18/2008	10.97	ND	0.00	9.52	Product level measured after removing absorbent
						4/22/2008	11.02	ND	0.00	9.47	---
						11/30/2016	10.10	NM	---	10.39	---
						3/23/2017	8.01	ND	0.00	12.48	---
						7/27/2017	9.96	ND	0.00	10.53	---
						10/5/2017	10.75	NM	---	9.74	---
						1/12/2018	9.23	NM	---	11.26	---
						5/29/2018	9.65	NM	---	10.84	---
						8/23/2018	9.98	NM	---	10.51	---
						11/27/2018	10.00	NM	---	10.49	---
						8/15/2022	10.04	NM	---	10.45	---
						9/7/2022	10.49	NM	---	10.00	---
						9/27/2022	10.69	ND	0.00	9.80	---
						10/17/2022	10.95	NM	---	9.54	---
						2/22/2023	9.12	ND	0.00	11.37	---
						4/24/2023	9.01	ND	0.00	11.48	---
						7/19/2023	10.08	ND	0.00	10.41	---
						3/27/2024	14.90	ND	0.00	5.59	---

TABLE 1

Well Construction Details and Liquid Level Measurements

Boeing Field Chevron

10805 East Marginal Way

Tukwila, Washington

Monitoring Well	Well Installation Date	Top of Well Casing Elevation (feet relative to datum)[1]	Depth to Top of Screen (feet below ground surface)	Depth to Bottom of Screen (feet below ground surface)	Well Diameter (inches)	Date Measured	Depth to Water (feet below top of casing)	Depth to Product (feet below top of casing)	Product Thickness (feet)	Calculated Groundwater Elevation[2] (feet relative to datum)	Comments
TW-1	4/11/2019	20.59	5	9	2	8/15/2022	9.64	NM	---	10.95	---
						9/7/2022	9.87	NM	---	10.72	---
						9/27/2022	10.04	NM	---	10.55	---
						10/17/2022	10.18	NM	---	10.41	---
						2/22/2023	7.31	ND	0.00	13.28	---
						4/24/2023	8.34	ND	0.00	12.25	---
						7/19/2023	9.61	ND	0.00	10.98	---
TW-2	4/11/2019	20.52	5	9	2	8/15/2022	9.29	NM	---	11.23	---
						9/7/2022	9.46	NM	---	11.06	---
						9/27/2022	9.63	NM	---	10.89	---
						10/17/2022	9.84	NM	---	10.68	---
						2/22/2023	8.49	ND	0.00	12.03	---
						4/24/2023	8.26	ND	0.00	12.26	---
						7/19/2023	9.54	ND	0.00	10.98	---
						3/27/2024	8.17	ND	0.00	12.35	---
TW-3	4/11/2019	20.38	5	9	2	8/15/2022	9.30	NM	---	11.08	---
						9/7/2022	9.50	NM	---	10.88	---
						9/27/2022	9.72	NM	---	10.66	---
						10/17/2022	10.00	NM	---	10.38	---
						2/22/2023	8.05	ND	0.00	12.33	---
						4/24/2023	8.01	ND	0.00	12.37	---
						7/19/2023	9.15	ND	0.00	11.23	---
						3/27/2024	7.67	ND	0.00	12.71	---
TW-4	8/12/2022	20.42	5	15	2	8/15/2022	10.26	NM	---	10.16	---
						9/7/2022	10.64	NM	---	9.78	---
						9/27/2022	10.76	NM	---	9.66	---
						10/17/2022	11.03	NM	---	9.39	---
						2/22/2023	9.00	ND	0.00	11.42	---
						4/24/2023	8.67	ND	0.00	11.75	---
						7/19/2023	10.09	ND	0.00	10.33	---
TW-5	8/12/2022	20.35	7	12	2	8/15/2022	9.93	NM	---	10.42	---
						9/7/2022	10.26	NM	---	10.09	---
						9/27/2022	10.42	NM	---	9.93	---
						10/17/2022	10.67	NM	---	9.68	---
						2/22/2023	8.98	ND	0.00	11.37	---
						4/24/2023	8.85	ND	0.00	11.50	---
						7/19/2023	9.93	ND	0.00	10.42	---
Lower Saturated Zone Wells											
MW-19	4/16/08	18.04	15	20	1	11/30/2016	11.50	ND	0.00	6.54	---
						3/23/2017	10.31	ND	0.00	7.73	---
						7/27/2017	10.64	ND	0.00	7.40	---
						10/5/2017	13.58	NM	---	4.46	---
						8/23/2018	15.80	NM	---	2.24	---
						11/27/2018	8.50	NM	---	9.54	---
						3/27/2024	9.07	NM	---	8.97	---
MW-21	4/16/08	18.58	17	22	1	11/30/2016	12.00	ND	0.00	6.58	---
						3/23/2017	12.67	ND	0.00	5.91	---
						7/27/2017	12.35	ND	0.00	6.23	---
						10/5/2017	13.65	NM	---	4.93	---
						1/16/2018	11.80	NM	---	6.78	---
						5/25/2018	14.04	NM	---	4.54	---
						8/23/2018	17.48	NM	---	1.10	---
						11/27/2018	8.52	NM	---	10.06	---
						3/27/2024	10.98	NM	---	7.60	---
MW-24D	1/11/18	20.14	20	25	1	1/12/2018	12.08	NM	---	8.06	---
						5/25/2018	15.56	NM	---	4.58	---
						8/23/2018	15.97	NM	---	4.17	---
						11/27/2018	12.20	NM	---	6.02	---
						3/27/2024	13.43	NM	---	4.79	---
MW-26D	11/17/16	19.69	18	23	2	11/30/2016	12.19	ND	0.00	7.50	---
						3/23/2017	12.24	ND	0.00	7.45	---
						7/26/2017	13.49	ND	0.00	6.20	---
						10/5/2017	14.66	NM	---	5.03	---
						1/11/2018	11.46	NM	---	8.23	---
						8/23/2018	15.65	NM	---	4.04	---
						11/27/2018	11.92	NM	---	7.77	---
MW-27D	11/21/16	19.53	15	22	2	11/28/2016	11.48	ND	0.00	8.05	---
						3/23/2017	11.94	ND	0.00	7.59	---
						7/26/2017	13.44	ND	0.00	6.09	---
						10/5/2017	15.39	NM	---	4.14	---
						1/16/2018	12.04	NM	---	7.49	---
						5/25/2018	13.98	NM	---	5.55	---
						8/23/2018	16.12	NM	---	3.41	---
						11/27/2018	12.07	NM	---	7.46	---
						3/27/2024	11.90	ND	0.00	7.63	---
MW-28D	11/18/16	19.45	18	23	2	11/28/2016	12.00	ND	0.00	7.45	---
						3/23/2017	11.93	ND	0.00	7.52	---
						7/26/2017	13.34	ND	0.00	6.11	---
						10/5/2017	15.44	NM	---	4.01	---
						1/11/2018	12.29	NM	---	7.16	---
						8/23/2018	15.05	NM	---	4.40	---
						11/27/2018	11.96	NM	---	7.49	---
						3/27/2024	12.43	ND	0.00	7.02	---
MW-29D	1/11/18	21.59	20	25	1	1/12/2018	13.42	NM	---	8.17	---
						5/29/2018	16.12	NM	---	5.47	---
						8/23/2018	17.85	NM	---	3.74	---
						11/27/2018	13.54	NM	---	8.05	---
						3/27/2024	14.95	ND	0.00	6.64	---
MW-30	1/11/18	21.20	20	25	1	1/12/2018	13.09	NM	---	8.11	---
						5/25/2018	16.89	NM	---	4.31	---
						8/23/2018	17.31	NM	---	3.89	---
						11/27/2018	13.06	NM	---	8.14	---
						3/27/2024	12.64	ND	0.00	8.56	---

TABLE 1

Well Construction Details and Liquid Level Measurements
Boeing Field Chevron
10805 East Marginal Way
Tukwila, Washington

Monitoring Well	Well Installation Date	Top of Well Casing Elevation (feet relative to datum)[1]	Depth to Top of Screen (feet below ground surface)	Depth to Bottom of Screen (feet below ground surface)	Well Diameter (inches)	Date Measured	Depth to Water (feet below top of casing)	Depth to Product (feet below top of casing)	Product Thickness (feet)	Calculated Groundwater Elevation[2] (feet relative to datum)	Comments
IP-3	4/19/06	20.28	18	24	2	5/2/2006	13.74	ND	0.00	6.54	---
						5/8/2006	15.10	ND	0.00	5.18	---
						6/13/2006	16.16	ND	0.00	4.12	---
						6/19/2006	14.65	ND	0.00	5.63	---
						8/22/2006	16.73	ND	0.00	3.55	---
						10/13/2006	14.55	ND	0.00	5.73	---
						1/4/2007	11.11	ND	0.00	9.17	---
						2/22/2007	13.45	ND	0.00	6.83	---
						5/1/2007	14.22	ND	0.00	6.06	---
						10/1/2007	13.82	ND	0.00	6.46	---
						2/25/2008	15.59	15.59	TR	4.69	Trace product observed but thickness not measureable
						2/26/2008	14.49	ND	0.00	5.79	---
						2/28/2008	13.63	ND	0.00	6.65	---
						3/27/2008	13.74	ND	0.00	6.54	---
						4/18/2008	15.95	ND	0.00	4.33	---
						4/22/2008	15.96	ND	0.00	4.32	---
						3/23/2017	12.96	ND	0.00	7.32	---
						7/27/2017	14.16	ND	0.00	6.12	---
						10/5/2017	15.32	NM	---	4.96	---
						1/12/2018	12.01	NM	---	8.27	---
						5/29/2018	14.55	NM	---	5.73	---
						8/23/2018	16.23	NM	---	4.05	---
						11/27/2018	12.53	NM	---	7.75	---
						8/15/2022	14.06	NM	---	6.22	---
						9/7/2022	15.87	ND	0.00	4.41	---
						9/27/2022	14.15	NM	---	6.13	---
						10/17/2022	14.65	NM	---	5.63	---
						2/22/2023	12.81	ND	0.00	7.47	---
						4/24/2023	12.91	ND	0.00	7.37	---
						7/19/2023	14.22	ND	0.00	6.06	---
IP-5	4/26/06	21.08	18	24	2	5/2/2006	14.54	ND	0.00	6.54	---
						5/8/2006	15.83	ND	0.00	5.25	---
						6/13/2006	17.03	ND	0.00	4.05	---
						6/19/2006	15.48	ND	0.00	5.60	---
						8/22/2006	17.57	ND	0.00	3.51	---
						10/13/2006	15.25	ND	0.00	5.83	---
						1/4/2007	11.93	ND	0.00	9.15	---
						1/25/2007	13.97	ND	0.00	7.11	---
						2/9/2007	12.65	ND	0.00	8.43	---
						2/22/2007	14.33	ND	0.00	6.75	---
						5/1/2007	15.06	ND	0.00	6.02	---
						10/1/2007	14.54	ND	0.00	6.54	---
						10/23/2007	15.51	ND	0.00	5.57	---
						2/20/2008	14.41	ND	0.00	6.67	---
						3/27/2008	15.01	ND	0.00	6.07	---
						4/18/2008	15.61	ND	0.00	5.47	---
						11/30/2016	13.00	NM	---	8.08	---
						3/23/2017	13.80	NM	---	7.28	---
						7/27/2017	13.76	NM	---	7.32	---
						10/5/2017	16.17	NM	---	4.91	---
						1/12/2018	13.42	NM	---	7.66	---
						5/29/2018	16.82	NM	---	4.26	---
						8/23/2018	17.08	NM	---	4.00	---
						11/27/2018	13.29	NM	---	7.79	---
						8/15/2022	12.13	NM	---	8.95	---
						9/7/2022	16.45	ND	0.00	4.63	---
						9/27/2022	14.92	NM	---	6.16	---
						10/17/2022	15.41	NM	---	5.67	---
						2/22/2023	13.63	ND	0.00	7.45	---
						4/24/2023	13.52	ND	0.00	7.56	---
						7/19/2023	14.97	ND	0.00	6.11	---
						3/27/2024	14.82	ND	0.00	6.26	---

TABLE 1

Well Construction Details and Liquid Level Measurements
Boeing Field Chevron
10805 East Marginal Way
Tukwila, Washington

Monitoring Well	Well Installation Date	Top of Well Casing Elevation (feet relative to datum)[1]	Depth to Top of Screen (feet below ground surface)	Depth to Bottom of Screen (feet below ground surface)	Well Diameter (inches)	Date Measured	Depth to Water (feet below top of casing)	Depth to Product (feet below top of casing)	Product Thickness (feet)	Calculated Groundwater Elevation[2] (feet relative to datum)	Comments
IP-7	8/4/06	20.31	17	23	2	8/22/2006	16.93	ND	TR	3.38	Trace product observed but thickness not measureable
						10/13/2006	16.51	14.09	2.42	5.59	---
						1/4/2007	13.89	9.98	3.91	9.31	---
						1/25/2007	16.39	12.40	3.99	6.87	---
						2/9/2007	15.96	12.09	3.87	7.21	---
						2/22/2007	13.48	13.20	0.28	7.04	---
						3/7/2007	15.29	14.62	0.67	5.52	---
						5/1/2007	15.61	14.20	1.41	5.74	---
						10/1/2007	13.87	13.75	0.12	6.53	---
						10/23/2007	15.61	14.20	1.41	5.74	---
						2/20/2008	14.41	13.71	0.70	6.42	---
						2/21/2008	14.10	14.07	0.03	6.23	Product level measured after removing absorbent
						2/25/2008	15.85	15.74	0.11	4.54	Product level measured after removing absorbent
						2/26/2008	14.34	ND	0.00	5.97	Product level measured after removing absorbent
						2/28/2008	13.53	13.53	TR	6.78	Trace product observed but thickness not measureable
						3/4/2008	14.72	14.26	0.46	5.93	Product level measured after removing absorbent
						3/12/2008	15.70	14.82	0.88	5.26	Product level measured after removing absorbent
						3/13/2008	14.00	13.52	0.48	6.66	Product level measured after removing absorbent
						3/21/2008	---	ND	0.00	NC	Product level measured after removing absorbent
						3/27/2008	14.85	ND	0.00	5.46	Product level measured after removing absorbent
						4/2/2008	14.72	14.72	TR	5.59	Trace product observed but thickness not measureable
						4/7/2008	16.42	ND	0.00	3.89	Product level measured after removing absorbent
						4/9/2008	15.95	ND	0.00	4.36	Product level measured after removing absorbent
						4/11/2008	---	ND	0.00	NC	Product level measured after removing absorbent
						4/15/2008	---	ND	0.00	NC	Product level measured after removing absorbent
						4/18/2008	16.03	ND	0.00	4.28	Product level measured after removing absorbent
						4/22/2008	15.55	ND	0.00	4.76	Product level measured after removing absorbent
						11/18/2008	16.03	ND	0.00	4.28	---
						9/22/2009	15.85	14.73	1.12	5.29	Removed non-operational skimmer.
						10/27/2009	13.82	13.55	0.27	6.69	Product level measured after removing absorbent
						3/24/2011	14.33	11.68	2.65	7.94	---
						6/8/2011	15.82	15.10	0.72	5.02	---
						8/2/2011	16.95	14.82	2.13	4.93	---
						9/26/2011	17.04	16.09	0.95	3.97	---
						11/29/2011	14.87	12.39	2.48	7.27	---
						2/1/2012	14.68	11.75	2.93	7.80	---
						3/28/2012	14.22	12.71	1.51	7.21	---
						9/29/2016	16.30	14.21	2.09	5.55	---
						11/30/2016	13.38	12.51	0.87	7.57	---
						3/23/2017	15.12	12.30	2.82	7.27	---
						7/26/2017	14.10	11.81	2.29	7.90	---
						1/23/2018	16.70	10.70	6.00	8.04	---
						5/29/2018	14.72	14.71	0.01	5.60	---
						6/7/2018	15.2	14.76	0.44	5.44	---
						11/27/2018	14.90	11.62	3.28	7.83	---
						5/13/2019	17.25	14.57	2.68	5.04	---
						8/15/2022	13.93	12.93	5.00	10.08	---
						9/7/2022	15.67	15.26	2.05	6.15	---
						9/27/2022	14.10	13.43	3.33	8.67	---
						10/7/2022	12.27	ND	0.00	8.04	Product/water pumped from well prior to measurement
						10/17/2022	14.47	14.14	1.66	7.06	---
						12/16/2022	10.16	13.27	2.14	11.73	---
						12/19/2022	10.16	12.13	0.17	10.28	---
						1/20/2023	9.78	12.23	0.35	10.79	---
						2/22/2023	12.79	13.46	0.84	8.14	---
						4/24/2023	12.77	14.55	2.23	9.19	---
						7/19/2023	14.16	13.63	2.66	8.11	---
						3/27/2024	15.83	14.85	0.98	5.20	---

Notes:

Only current wells are included in this table. Liquid level information for decommissioned wells is included in the Remedial Investigation report.

[1]Data from PLS Inc. Topographic Survey dated November 30, 2016.

[2]Groundwater elevation adjucted for floating product, where present based on a product specific gravity (SG) of 0.739 using the equation: Groundwater Elevation = Top of Well Casing Elevation - (Depth to Water - (Product Thickness x Product SG)).

NC Elevation could not be calculated with available data.
ND Observed or measureable product not detected.
NM Not measured.
TR Trace product observed but thickness not measureable.

Table 2

Groundwater Field Parameter Measurements
Boeing Field Chevron
10805 East Marginal Way South
Tukwila, Washington
Project Number: 01-0410-S

Monitoring Well	Measurement Date	pH	Specific Conductivity (microSiemens per centimeter)	Turbidity (nephelometric turbidity units)	Temperature (degrees Celsius)	Oxidation-Reduction Potential (millivolts)	Dissolved Oxygen (milligrams per liter)
Upper Saturated Zone Wells							
MW-18	3/28/2024	6.26	0.530	6.33	12.3	52.8	0.56
MW-20	3/28/2024	6.44	455.1	76.75	13.4	-43.8	0.87
MW-23	3/27/2024	6.47	403.4	4.26	12.3	208.6	0.92
MW-24	3/28/2024	6.38	1,048	4.94	11.0	168.5	1.82
MW-25	3/27/2024	6.32	457.6	9.57	12.1	234.1	1.76
MW-26S	3/29/2024	6.46	282.3	5.11	10.9	198.1	4.41
MW-27S	3/29/2024	6.53	0.285	4.98	11.8	140.7	0.57
MW-28S	3/28/2024	6.62	297.8	1.28	11.6	41.3	5.01
MW-29S	10/7/2022	6.39	429.9	NM	20.4	14.0	2.40
IP-4	8/15/2022	6.53	992	NM	16.6	-115.5	0.32
	9/27/2022	6.66	1,100	NM	17.3	-134.7	0.16
	2/23/2023	7.34	1,071	33.40	8.5	-98.5	8.06
	4/25/2023	6.77	1,838	27.73	12.5	-56.1	0.43
	7/20/2023	6.70	1,000	2.94	16.4	368.4	0.70
	3/29/2024	6.51	0.536	7.09	12.5	-104.5	0.25
TW-1	2/22/2023	9.31	1,259	135.34	8.9	37.7	7.20
	4/24/2023	8.39	1,510	7.16	11.5	80.1	3.08
	7/19/2023	8.13	1,593	0.29	18.5	450.6	0.69
TW-2	2/22/2023	7.82	1,517	26.96	8.3	89.7	16.09
	4/24/2023	7.05	1,667	18.32	11.3	106.9	6.56
	7/19/2023	6.90	1,428	19.63	20.2	497.3	1.72
	3/29/2024	6.88	1,139	2.06	11.4	42.3	1.00
TW-3	2/22/2023	6.82	954	3.55	9.8	-134.1	8.25
	4/24/2023	6.52	1,364	4.60	12.1	-86.2	0.60
	7/19/2023	6.75	1,318	0.55	20.7	325.5	0.59
	3/29/2024	6.66	1,203	3.62	12.6	-45.5	0.65
TW-4	8/15/2022	6.73	864	NM	18.2	-54.9	0.60
	9/27/2022	6.73	734	NM	18.0	-88.1	0.26
	2/22/2023	9.52	1,441	166.40	10.0	-7.3	9.17
	4/24/2023	7.84	1,406	19.01	12.4	-35.2	7.34
	7/19/2023	7.50	1,640	0.78	19.6	299.2	0.47
TW-5	8/15/2022	6.62	829	NM	16.6	-87.9	1.18
	9/27/2022	6.42	812	NM	17.2	-147.9	0.25
	2/22/2023	9.78	7,786	213.89	10.3	-428.6	5.47
	4/24/2023	8.74	7,506	95.29	12.8	-383.6	0.25
	7/19/2023	8.87	3,958	0.14	16.8	-246.3	0.26
Lower Saturated Zone Wells							
AS-1	8/15/2022	6.60	900	NM	17.1	-0.9	0.54
	9/27/2022	7.67	3,254	NM	17.5	-240.4	0.10
	2/23/2023	7.85	2,679	378.75	10.0	-258.9	8.09
	4/25/2023	7.01	3,343	37.90	12.2	-73.3	0.68
	7/20/2023	7.23	2,554	55.74	16.5	520.9	0.41
IP-3	8/15/2022	6.35	400	NM	15.9	-37.1	0.24
	2/23/2023	9.39	3,353	590.60	10.4	-319.4	13.05
	4/25/2023	7.75	3,526	8.37	13.6	-133.5	0.35
	7/20/2023	7.44	3,342	121.39	15.4	237.2	0.55
IP-5	8/15/2022	5.89	222.8	NM	15.5	31.0	0.34
	2/22/2023	10.38	4,682	76.67	11.8	-147.9	7.20
	4/24/2023	9.06	3,037	12.37	14.4	-307.1	0.29
	7/19/2023	7.62	2,975	240.66	16.8	268.9	0.30
	3/29/2024	7.18	1,733	11.76	13.5	-100.3	0.73
IP-7	2/23/2023	6.58	501	118.75	11.4	-103.9	14.14
	4/25/2023	6.32	679	5.41	13.3	-15.5	0.45
	7/20/2023	6.52	574	86.24	17.3	398.6	0.54
MW-19	3/28/2024	6.30	0.423	11.21	12.5	-9.0	0.39
MW-21	3/28/2024	6.35	0.454	5.01	13.7	-63.7	0.44
MW-24D	3/27/2024	6.44	587	869.82	13.9	-75.0	1.05
MW-27D	10/7/2022	5.97	374.8	NM	15.5	-38.7	1.88
	3/29/2024	6.17	0.205	4.42	13.9	3.8	0.35
MW-28D	3/28/2024	6.30	0.062	9.23	13.2	63.2	2.53
MW-29D	3/28/2024	6.27	319.3	8.55	13.7	15.0	0.90
MW-30	3/27/2024	6.32	421.3	52.08	14.1	-7.0	0.85

Notes:

NM Not measured

TABLE 3

Petroleum Hydrocarbons and Volatile Organic Compounds in Groundwater
Boeing Field Chevron
10805 East Marginal Way
Tukwila, Washington

Monitoring Well Identifier	Sample Identifier	Sample Date	Petroleum Hydrocarbons				Volatile Organic Compounds							
			Gasoline Range Organics	Diesel Range Organics	Oil Range Organics	Diesel + Oil Range Organics[1]	Benzene	Toluene	Ethylbenzene	Xylenes[2]	Methyl tert-Butyl Ether	1,2-Dibromo-ethane	1,2-Dichloro-ethane	Hexane
Concentrations reported in micrograms per liter														
Original RI Cleanup Levels[3]			**800**	**500**	**500**	**500**	**1.6**	**130**	**31**	**NE**	**NE**	**NE**	**NE**	**NE**
Revised RI Cleanup Levels			**800**	**500**	**500**	**500**	**1.6**	**130**	**31**	**106[4]**	**20[5]**	**0.01[5]**	**5[5]**	**480[6]**
Upper Saturated Zone Wells														
MW-18	MW-18	4/18/2008	<100	---	---	---	<1	<2	<1	<3	---	---	---	---
	MW-18 GW-L	7/15/2015	<100	<50	<250	<150	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-18 GW-H	7/21/2015	<100	**66**	<250	**190**	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-18	11/30/2016	<50.0	<49.6	<99.3	<74.5	**1.01**	<1.00	**1.19**	<1.00	<1.00	<0.00970	<1.00	<1.00
	MW-18-3232017	3/23/2017	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00979	<1.00	---
	MW-18-7272017	7/27/2017	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00955	<1.00	---
	MW-18-1052017	10/5/2017	<50.0	<49.8	<99.6	<74.5	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00950	<1.00	<1.00
	MW-18	1/16/2018	<50.0	---	---	---	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-18	5/25/2018	<50.0	---	---	---	<1.00	<1.00	<1.00	<1.00	---	<0.00975	---	---
	MW-18	8/23/2018	<50.0	---	---	---	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-18	11/28/2018	<50.0	<49.9	**138**	**163**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-18	3/28/2024	<100	<180	<280	<230	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-20	MW-20	4/18/2008	<100	---	---	---	<1	<2	<1	<3	---	---	---	---
	MW-20 GW-L	7/15/2015	<100	<50	<250	<150	<0.35	<1	<1	<3	**1.4**	<0.01	<1	<1
	MW-20 GW-H	7/21/2015	<100	**92**	<250	**220**	<0.35	<1	<1	<3	**1.6**	<0.01	<1	<1
	MW-20	11/30/2016	<50.0	<49.8	<99.8	<74.8	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00973	<1.00	<1.00
	MW-20-3232017	3/23/2017	<50.0	<49.7	<99.4	<74.6	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00969	<1.00	---
	MW-20-7272017	7/27/2017	<50.0	<50.1	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	---
	MW-20-1042017	10/4/2017	<50.0	<49.7	<99.4	<74.6	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00991	<1.00	<1.00
	MW-20	8/23/2018	**117**	---	---	---	<1.00	<1.00	**3.6**	**10.4**	---	---	---	---
	MW-20	11/27/2018	**94.6**	<49.9	<99.8	<74.9	<1.00	<1.00	**5.18**	**16.1**	---	---	---	---
	MW-20	3/28/2024	<100	<130	**220**	**290**	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-22	MW-22	12/6/2016	<50.0	<50.4	**197**	**222**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00981	<1.00	<1.00
	MW-22-3232017	3/23/2017	<50.0	<49.8	<99.8	<74.8	<1.00	<1.00	<1.00	<1.00	<1.00	<0.0100	<1.00	---
	MW-22-7262017	7/26/2017	<50.0	<50.2	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00978	<1.00	---
	MW-22-1052017	10/5/2017	<50.0	<49.6	<99.3	<74.5	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00983	<1.00	<1.00
	MW-22	8/23/2018	<50.0	<49.9	**131**	**156**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-22	11/27/2018	<50.0	**62.7**	**243**	**306**	<1.00	**2.26**	**1.39**	**7.02**	---	---	---	---
MW-23	MW-23	12/6/2016	**848**	**94.2**	<100	**144**	**19.8**	<1.00	<1.00	**134**	<1.00	<0.00999	<1.00	<1.00
	MW-23-3232017	3/23/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00983	<1.00	---
	MW-23-7262017	7/26/2017	<50.0	<49.7	<99.5	<74.6	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00995	<1.00	---
	MW-23-1052017	10/5/2017	<50.0	<49.5 J	<99.0	<74.3	<1.00	<1.00	<1.00	**1.27**	<1.00	<0.00997	<1.00	<1.00
	MW-23	1/12/2018	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.250	<1.00	---
	MW-23	5/25/2018	<50.0	<50.0	<99.9	<75.0	<1.00	<1.00	<1.00	<1.00	---	<0.00970	---	---
	MW-23	8/23/2018	<50.0	<49.7	<99.5	<74.6	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-23	11/27/2018	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-23	3/27/2024	<100	<140	<220	<180	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-24	MW-24	12/6/2016	<50.0	<50.2	**328**	**378**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	<1.00
	MW-24-3232017	3/23/2017	<50.0	<49.7	**307**	**332**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00965	<1.00	---
	MW-24-7272017	7/27/2017	<50.0	**73.6**	**313**	**387**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00986	<1.00	---
	MW-24-1052017	10/5/2017	<50.0	**63.6 J**	<122	**125**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00945	<1.00	<1.00
	MW-24	1/11/2018	<50.0	<49.9	**117**	**142**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.250	<1.00	---
	MW-24	5/25/2018	<50.0	---	---	---	<1.00	<1.00	<1.00	<1.00	---	<0.00995	---	---
	MW-24	8/23/2018	---	**57.4**	**324**	**381**	---	---	---	---	---	---	---	---
	MW-24	11/27/2018	<50.0	<50.3	**306**	**331**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-24[7]	3/28/2024	---	<210	<210	<210	---	---	---	---	---	---	---	---
	MW-24	3/28/2024	<100	**190**	**460**	**650**	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-25	MW-25	12/6/2016	<50.0	<49.8	**128**	**153**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00984	<1.00	<1.00
	MW-25-3232017	3/23/2017	<50.0	<49.9	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00967	<1.00	---
	MW-25-7262017	7/26/2017	<50.0	<50.3	<101	<75.7	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	---
	MW-25-1052017	10/5/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.009987	<1.00	---
	MW-25	8/23/2018	<50.0	<49.9	<99.9	<74.9	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-25	11/27/2018	<50.0	<49.9	<99.9	<74.9	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-25	3/27/2024	<100	<140	<220	<180	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-26S	MW-26	11/30/2016	<50.0	<49.8	<99.6	<74.7	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00996	<1.00	<1.00
	MW-26S-3242017	3/24/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00989	<1.00	---
	MW-26S-7262017	7/26/2017	<50.0	<50.2	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00976	<1.00	---
	MW-26S-1042017	10/4/2017	<50.0	<49.6	<99.2	<74.4	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00971	<1.00	<1.00
	MW-26S	8/24/2018	<50.0	<49.7	<99.4	<74.6	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-26S	11/28/2018	<50.0	<50.1	<100	<75.1	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-26S	3/29/2024	<100	<130	<210	<170	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-27S	MW-27S	11/28/2016	<50.0	<50.1	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00987	<1.00	<1.00
	MW-27S-3242017	3/24/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00994	<1.00	---
	MW-27S-7262017	7/26/2017	<50.0	<50.2	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00971	<1.00	---
	MW-27S-1042017	10/4/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00997	<1.00	<1.00
	MW-27S	1/16/2018	<50.0	<49.9	<99.9	<74.9	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27S	5/25/2018	<50.0	<49.8	<99.6	<74.7	<1.00	<1.00	<1.00	<1.00	---	<0.00989	---	---
	MW-27S	8/23/2018	<50.0	<49.7	<99.5	<74.6	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27S	11/28/2018	<50.0	<49.6	<99.2	<74.4	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27S	3/29/2024	<100	<170	<280	<225	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-28S	MW-28S	11/28/2016	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00978	<1.00	<1.00
	MW-28S-3242017	3/24/2017	<50.0	<49.9	<99.9	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.0100	<1.00	---
	MW-28S-7262017	7/26/2017	<50.0	<50.3	<101	<75.7	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00925	<1.00	---
	MW-28S-1042017	10/4/2017	<50.0	<49.3	<98.6	<74.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00997	<1.00	<1.00
	MW-28S	8/23/2018	<50.0	<49.8	<99.6	<74.7	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-28S	11/27/2018	<50.0	<49.8	<99.6	<74.7	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-28S	3/28/2024	<100	<140	<230	<185	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-29S	MW-29S	1/16/2018	**113**	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	**13.8**	<1.00	<0.250	<1.00	---
	MW-29S	5/29/2018	**130**	<49.9	<99.7	<74.8	<1.00	<1.00	<1.00	**8.80**	---	<0.00990	---	---
	MW-29S	8/24/2018	**201**	**106**	<99.6	**156**	<1.00	<1.00	<1.00	**15.2**	---	<0.00992	---	---
	MW-29S	11/28/2018	**73.3**	<50.1	<100	<75.1	<1.00	<1.00	<1.00	**4.10**	---	<0.00888	---	---

TABLE 3

Petroleum Hydrocarbons and Volatile Organic Compounds in Groundwater
Boeing Field Chevron
10805 East Marginal Way
Tukwila, Washington

Monitoring Well Identifier	Sample Identifier	Sample Date	Petroleum Hydrocarbons				Volatile Organic Compounds							
			Gasoline Range Organics	Diesel Range Organics	Oil Range Organics	Diesel + Oil Range Organics[1]	Benzene	Toluene	Ethylbenzene	Xylenes[2]	Methyl tert-Butyl Ether	1,2-Dibromo-ethane	1,2-Dichloro-ethane	Hexane
Concentrations reported in micrograms per liter														
Original RI Cleanup Levels[3]			**800**	**500**	**500**	**500**	**1.6**	**130**	**31**	**NE**	**NE**	**NE**	**NE**	**NE**
IP-4	IP-4	5/8/2006	**110**	---	---	---	**15,000**	**48,000**	**3,700**	**23,000**	---	---	---	---
	IP-4	3/27/2008	**84,400**	---	---	---	**14,600**	**22,100**	**4,920**	**17,600**	---	---	---	---
	IP-4 GW-L	7/17/2015	**170,000**	**6,800**	<250	**6,900**	**4,100**	**29,000**	**4,800**	**27,000**	**1.4**	**0.12**	<1	**87**
	IP-4 GW-H	7/24/2015	**150,000**	**8,700**	<250	**8,800**	**4,200**	**27,000**	**4,300**	**24,000**	<10	**0.04**	<5	**64**
	IP-4	11/30/2016	**93,400**	**1,410**	<99.6	**1,460**	**1,070**	**15,600**	**3,300**	**20,000**	<1.00	<0.00986	<1.00	**127 J**
	IP-4-3232017	3/23/2017	**209,000**	**1,570**	<99.6	**1,620**	**1,360**	**16,200**	**5,090**	**30,400**	<1.00	<0.00953	<1.00	---
	IP-4-7272017	7/27/2017	**213,000**	**1,180**	<99.4	**1,230**	**1,170**	**19,600**	**5,500**	**19,200**	<1.00	<0.00971	<1.00	---
	IP-4-1042017	10/4/2017	**212,000**	**1,110**	<101	**1,160**	**2,030**	**18,400**	**5,320**	**25,200**	<1.00	<0.00960	<1.00	**48.0**
	IP-4	1/12/2018	**162,000**	**1,250**	<99.9	**1,300**	**939**	**18,600**	**5,180**	**28,000**	<1.00	<0.250	<1.00	---
	IP-4	5/29/2018	**199,000**	**1,250**	**138**	**1,390**	**687**	**17,200**	**6,090**	**32,200**	---	<0.00998	---	---
	IP-4	8/24/2018	**131,000**	**584**	<99.9	**634**	**421**	**11,400**	**5,550**	**29,300**	---	---	---	---
	IP-4	11/28/2018	**123,000**	**471**	<99.9	**521**	**246**	**7,380**	**5,170**	**27,100**	---	<0.00962	---	---
	IP-4	8/15/2022	**126,000 J**	**9,500**	<1,110	**10,000**	**54.6 J**	**2,140 J**	**5,100 J**	**14,500 J**	---	---	---	---
	IP-4	9/27/2022	**114,000 J**	**17,300**	<92.7	**17,300**	**47.2 J**	**2,420 J**	**4,110 J**	**17,600 J**	---	---	---	---
	IP-4	2/23/2023	**63,000**	**3,300**	**530**	**3,800**	**27**	**81**	**1,600**	**6,600**	---	---	---	---
	IP-4	4/25/2023	**57,000**	<4,500	**320**	**2,600**	**26**	**110**	**3,100**	**11,000**	---	---	---	---
	IP-4	7/19/2023	**54,000**	**6,300**	**570**	**6,900**	**41**	**340**	**4,800**	**12,000**	---	---	---	---
	IP-4	3/29/2024	**55,000**	<6,100	**530**	**3,600**	**23**	**7.6**	**2,900**	**6,000**	---	---	---	---
TW-1	TW-1	2/22/2023	<100	**130**	**350**	**480**	<0.20	<1.0	<0.20	<0.40	---	---	---	---
	TW-1	4/24/2023	<100	<210	<220	<215	<0.20	<1.0	<0.20	<0.40	---	---	---	---
	TW-1	7/19/2023	<100	**170**	**300**	**500**	**0.30**	**1.1**	**0.89**	**4.9**	---	---	---	---
TW-2	TW-2	2/22/2023	**100**	**110 J**	**310**	**420**	**220**	**9**	**8**	**42**	---	---	---	---
	TW-2	4/24/2023	**330**	<210	<220	<215	<0.40	**7.1**	**6**	**31**	---	---	---	---
	TW-2	7/19/2023	**7,400**	**170**	**600**	**800**	**1.3**	**28**	**18**	**90**	---	---	---	---
	TW-2	3/29/2024	<100	<140	<220	<180	<1.0	<1.0	<1.0	<1.0	---	---	---	---
TW-3	TW-3	2/22/2023	**14,000**	**4,800 J**	**620**	**5,420**	**2,800**	<100	**1,500**	**1,200**	---	---	---	---
	TW-3	4/24/2023	**13,000**	<3,700	**350**	**2,100**	**2,400**	**96**	**1,600**	**1,900**	---	---	---	---
	TW-3	3/29/2024	**9,400**	<2,800	**650**	**1,725**	**1,600**	**20**	**1,300**	**970**	---	---	---	---
TW-4	TW-4	8/15/2022	**139**	**561**	<94.7	**608**	<0.440	**4.25**	**0.811**	**4.88**	---	---	---	---
	TW-4	9/27/2022	**133**	**381**	<91.9	**427**	<0.440	**6.35**	**0.978**	**4.20**	---	---	---	---
	TW-4	2/22/2023	<100	<120	**310**	**370**	<0.20	**1.1**	**0.30**	**1.3**	---	---	---	---
	TW-4	4/24/2023	<100	<230	<230	<230	<0.40	<2.0	**0.86**	**4.4**	---	---	---	---
	TW-4	7/19/2023	<100	**120**	**300**	**400**	<0.20	<1.0	<0.20	**0.41**	---	---	---	---
TW-5	TW-5	8/15/2022	**214,000 J**	**8,850**	<94.2	**8,900**	**351 J**	**38,400 J**	**6,000 J**	**23,800 J**	---	---	---	---
	TW-5	9/27/2022	**178,000 J**	**8,520**	<94.2	**8,570**	**258 J**	**30,600 J**	**3,890 J**	**20,900 J**	---	---	---	---
	TW-5	2/22/2023	**140,000**	**9,200 J**	**540 J**	**9,700**	**220**	**24,000**	**4,200**	**21,000**	---	---	---	---
	TW-5	4/24/2023	**150,000**	<4,400	**330**	**2,500**	**220**	**25,000**	**5,400**	**27,000**	---	---	---	---
	TW-5	7/19/2023	**150,000**	**3,400 J**	**440 J**	**3,800**	**340**	**41,000**	**5,800**	**29,000**	---	---	---	---
AS-1	AS-1	4/17/2019	**4,150**	**270**	<101	**320**	**702**	**224**	**138**	**142**	<1.00	<0.0100	<1.00	---
	AS-1	8/15/2022	**474**	**617**	**478**	**1,100**	**5.98**	<0.750	**31.8**	**26.7**	---	---	---	---
	AS-1	9/27/2022	**5,780 J**	**3,610**	<93.0	**3,660**	**104 J**	**14.8 J**	**464 J**	**240 J**	---	---	---	---
	AS-1	2/23/2023	**6,000**	**2,900**	**620**	**3,500**	**32**	**36**	**310**	**710**	---	---	---	---
	AS-1	4/25/2023	**3,000**	<450	<220 J	<335	**16**	**15**	**150**	**350**	---	---	---	---
	AS-1	7/20/2023	**2,900**	**720 J**	<220 J	**830**	**25**	**18**	**150**	**380**	---	---	---	---
Lower Saturated Zone Wells														
AS-2	AS-2	4/17/2019	**1,560**	<50.0	<100	<75.0	**20.8**	**78.4**	**22.4**	**128**	<1.00	<0.00994	<1.00	---
IP-3	IP-3	5/8/2006	**28**	---	---	---	**1,800**	**13,000**	**1,400**	**8,300**	---	---	---	---
	IP-3	3/27/2008	**62,900**	---	---	---	**6,120**	**8,850**	**968**	**4,420**	---	---	---	---
	IP-3 GW-L	7/17/2015	**4,200**	**460**	<250	**585**	**1,200**	**11**	**70**	**39**	**1.2**	**0.10**	<1	**38**
	IP-3 GW-H	7/23/2015	**4,700**	**510**	<250	**640**	**1,300**	**13**	**71**	**41**	<10	**0.040**	<5	**35**
	IP-3-3232017	3/23/2017	**4,840**	<49.9	<99.8	<74.9	**783**	**105**	**127**	**139**	<1.00	<0.00976	<1.00	---
	IP-3-7272017	7/27/2017	**5,800**	<50.2	<100	<75.1	**862**	**20.5**	**136**	**61.6**	<1.00	<0.00952	<1.00	
	IP-3-1042017	10/4/2017	**3,740**	<50.3	<101	<75.7	**1,270**	**80.7**	**214**	**458**	<1.00	<0.0100	<1.00	**72.7**
	IP-3	1/12/2018	**4,610**	**74.3**	<99.6	**124**	**895**	**42.9**	**94.3**	**88.9**	<1.00	<0.250	<1.00	---
	IP-3	5/29/2018	**4,870**	<49.9	<99.8	<74.9	**971**	**34.5**	**106**	**107**	---	<0.00984	---	---
	IP-3	8/24/2018	**6,160**	**111**	**101**	**212**	**1,390**	**27.1**	**125**	**141**	---	<0.00987	---	---
	IP-3	11/28/2018	**3,710**	**63.9**	<99.7	**114**	**865**	**18.8**	**53.0**	**52.4**	---	<0.00997	---	---
	IP-3	8/15/2022	**4,450 J**	**277**	**612**	**889**	**1,080**	**21.9**	**43.1**	**92.1**	---	---	---	---
	IP-3	2/23/2023	**29,000**	**2,100 J**	**480**	**2,600**	**3,100**	**4,700**	**1,200**	**3,400**	---	---	---	---
	IP-3	4/25/2023	**21,000**	<930	<210 J	<570	**2,100**	**3,700**	**1,200**	**3,700**	---	---	---	---
	IP-3	7/20/2023	**20,000**	**1,600 J**	**400**	**2,000**	**1,100**	**1,600**	**1,300**	**3,200**	---	---	---	---
IP-5	IP-5	5/9/2006	**48**	---	---	---	**2,100**	**18,000**	**3,500**	**20,000**	---	---	---	---
	IP-5	3/27/2008	**13,300**	---	---	---	**711**	**1,260**	**363**	**1,370**	---	---	---	---
	IP-5 GW-L	7/20/2015	**35,000**	**3,900**	<250	**4,000**	**5,200**	**1,400**	**2,400**	**2,800**	<10	**0.32**	<5	**160**
	IP-5 GW-H	7/24/2015	**27,000**	**2,700**	<250	**2,800**	**4,500**	**1,100**	**2,200**	**2,600**	<10	**0.24**	<5	**170**
	IP-5	11/30/2016	**15,200**	**321**	<99.1	**371**	**3,450 J**	**212**	**774**	**1,790**	<1.00	<0.00987	<1.00	**57.1 J**
	IP-5-3232017	3/23/2017	**18,400**	**209**	<99.2	**259**	**1,740**	**141**	**665**	**1,640**	<1.00	<0.00980	<1.00	---
	IP5-7272017	7/27/2017	**15,800**	**102**	<99.9	**152**	**1,660**	**164**	**491**	**936**	<1.00	<0.00993	<1.00	---
	IP-5-1042017	10/4/2017	**30,700**	**175**	<100	**230**	**4,360**	**583**	**1,060**	**2,800**	<1.00	<0.00971	<1.00	**137**
	IP-5	1/12/2018	**13,000**	**222**	<100	**270**	**1,500**	**240**	**462**	**1,200**	<1.00	<0.250	<1.00	---
	IP-5	5/29/2018	**10,900**	**161**	<100	**210**	**1,270**	**149**	**415**	**807**	---	<0.00981	---	---
	IP-5	8/24/2018	**36,200**	**471**	<99.9	**521**	**5,670**	**2,200**	**1,190**	**2,770**	---	---	---	---
	IP-5	11/28/2018	**16,500**	**251**	<101	**302**	**2,590**	**490**	**633**	**1,110**	---	<0.00994	---	---
	IP-5	8/15/2022	**13,200 J**	**625**	<95.7	**673**	**1,940 J**	**346 J**	**358 J**	**916 J**	---	---	---	---
	IP-5	2/22/2023	**21,000**	**3,400**	**550**	**4,000**	**3,000**	**350**	**1,100**	**3,000**	---	---	---	---
	IP-5	4/24/2023	**14,000**	<2,000	**460**	**1,000**	**1,700**	**190**	**860**	**2,100**	---	---	---	---
	IP-5	7/19/2023	**25,000**	**2,600**	**430**	**3,000**	**4,900**	**3,000**	**1,400**	**3,200**	---	---	---	---
	IP-5	3/29/2024	**17,000**	<1,800 J	**220 J**	**1,100**	**1,300**	**910**	**780**	**2,000**	---	---	---	---
IP-7	IP-7	8/16/2022	**111,000 J**	**49,300 J**	<93.9	**24,697**	**1,040 J**	**3,620 J**	**2,920 J**	**15,300 J**	---	---	---	---
	IP-7	2/23/2023	**82,000**	**16,000**	**680**	**17,000**	**850**	**6,700**	**2,600**	**14,000**	---	---	---	---
	IP-7	4/25/2023	**53,000**	<2,200	**260**	**1,400**	**450**	**4,400**	**3,100**	**11,000**	---	---	---	---
	IP-7	7/20/2023	**54,000**	**4,000**	**380**	**4,000**	**840**	**5,300**	**2,500**	**13,000**	---	---	---	---
MW-19	MW-19	4/18/2008	<100	---	---	---	<1	<2	<1	<3	---	---	---	---
	MW-19 GW-L	7/15/2015	<100	**74**	<350	**250**	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-19 GW-H	7/21/2015	<100	**74**	<250	**200**	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-19	11/30/2016	<50.0	<49.9	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00983	<1.00	<1.00
	MW-19-3232017	3/23/2017	<50.0	<49.6	<99.2	<74.4	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00961	<1.00	---
	MW-19-7272017	7/27/2017	<50.0	<50.1	<100	<75.1	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00977	<1.00	---
	MW-19-1052017	10/5/2017	<50.0	<49.7	<99.4	<74.6	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00985	<1.00	<1.00
	MW-19	8/23/2018	<50.0	---	---	---	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-19	11/27/2018	<50.0	<50.2	**111**	**136**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-19	3/28/2024	<100	<150	<240	<195	<1.0	<1.0	<1.0	<1.0	---	---	---	---

TABLE 3

Petroleum Hydrocarbons and Volatile Organic Compounds in Groundwater
Boeing Field Chevron
10805 East Marginal Way
Tukwila, Washington

Monitoring Well Identifier	Sample Identifier	Sample Date	Petroleum Hydrocarbons				Volatile Organic Compounds							
			Gasoline Range Organics	Diesel Range Organics	Oil Range Organics	Diesel + Oil Range Organics[1]	Benzene	Toluene	Ethylbenzene	Xylenes[2]	Methyl tert-Butyl Ether	1,2-Dibromo-ethane	1,2-Dichloro-ethane	Hexane
Concentrations reported in micrograms per liter														
Original RI Cleanup Levels[3]			**800**	**500**	**500**	**500**	**1.6**	**130**	**31**	**NE**	**NE**	**NE**	**NE**	**NE**
MW-21	MW-21	4/18/2008	<100	---	---	---	<1	<2	<1	<3	---	---	---	---
	MW-21 GW-L	7/15/2015	<100	**220**	<250	**360**	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-21 GW-H	7/21/2015	<100	**260**	<250	**390**	<0.35	<1	<1	<3	<1	<0.01	<1	<1
	MW-21	11/30/2016	<50.0	<49.8	**210**	**240**	**2.61**	<1.00	<1.00	<1.00	<1.00	0.00973	<1.00	<1.00
	MW-21-3232017	3/23/2017	<50.0	<49.9	<99.9	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00980	<1.00	---
	MW-21-7272017	7/27/2017	<50.0	<50.1	**331**	**356**	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00983	<1.00	---
	MW-21-1052017	10/5/2017	<50.0	<49.3	<98.7	<74.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	<1.00
	MW-21	1/16/2018	<50.0	<49.8	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-21	5/25/2018	<50.0	<49.5	<98.9	<74.2	<1.00	<1.00	<1.00	<1.00	---	<0.00993	---	---
	MW-21	8/23/2018	<50.0	<49.9	**228**	**253**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-21	11/28/2018	<50.0	<49.9	**316**	**341**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-21	3/28/2024	<100	**180**	**390**	**570**	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-24D	MW-24D	1/12/2018	**841**	<50.0	<99.9	<75.0	**9.29**	**1.37**	<1.00	**6.15**	<1.00	<0.250	<1.00	---
	MW-24D	5/25/2018	**481**	<50.0	<99.9	<75.0	**33.5**	**1.38**	<1.00	**4.22**	---	<0.00991	---	---
	MW-24D	8/23/2018	**97.2**	<50.4	<101	<75.7	<1.00	<1.00	<1.00	**1.17**	---	---	---	---
	MW-24D	3/27/2024	**150**	<150	<210	<180	**1.4**	**1.8**	<1.00	**5.5**	---	---	---	---
MW-26D	MW-26D	11/30/2016	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00997	<1.00	<1.00
	MW-26D-3242017	3/24/2017	<50.0	<49.6	<99.1	<74.4	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00952	<1.00	---
	MW-26D-7262017	7/26/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00976	<1.00	---
	MW-26D-1042017	10/4/2017	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.0100	<1.00	<1.00
	MW-26D	8/24/2018	<50.0	<49.7	<99.5	<74.6	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-26D	11/28/2018	<50.0	<49.8	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	---	---	---	---
MW-27D	MW-27D	11/28/2016	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00990	<1.00	<1.00
	MW-27D-3242017	3/24/2017	**165**	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	---
	MW-27D-7262017	7/26/2017	**384**	<50.4	<101	<75.7	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00988	<1.00	---
	MW-27D-1042017	10/4/2017	**268**	<49.8	<99.6	<74.7	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00997	<1.00	**32.3**
	MW-27D	1/16/2018	**723**	<49.8	<99.5	<74.7	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27D	5/25/2018	**663**	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	---	<0.00967	---	---
	MW-27D	8/24/2018	**1,360**	**441**	**608**	**1,050**	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27D	11/28/2018	**425**	<49.7	<99.3	<74.5	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-27D	3/29/2024	<100	**220**	<160	**300**	**2.2**	<1.0	<1.0	<1.0	---	---	---	---
MW-28D	MW-28D	11/28/2016	<50.0	<49.5	<99.1	<74.3	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00995	<1.00	<1.00
	MW-28D-3242017	3/24/2017	<50.0	<49.7	<99.4	<74.6	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00989	<1.00	---
	MW-28D-7262017	7/26/2017	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00982	<1.00	---
	MW-28D-1042017	10/4/2017	<50.0	<49.6	<99.1	<74.4	<1.00	<1.00	<1.00	<1.00	<1.00	<0.00993	<1.00	<1.00
	MW-28D	1/11/2018	---	---	---	---	---	---	---	---	---	---	---	---
	MW-28D	8/23/2018	<50.0	<49.8	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-28D	11/27/2018	<50.0	<49.6	<99.1	<74.4	<1.00	<1.00	<1.00	<1.00	---	---	---	---
	MW-28D	3/28/2024	<100	**180**	**980**	**1,200**	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-29D	MW-29D	1/12/2018	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	<1.00	<0.250	<1.00	---
	MW-29D	5/29/2018	<50.0	<50.0	<100	<75.0	<1.00	<1.00	<1.00	<1.00	---	<0.00992	---	---
	MW-29D	8/24/2018	<50.0	<49.9	<99.8	<74.9	<1.00	<1.00	<1.00	<1.00	---	<0.0100	---	---
	MW-29D	11//28/2018	<50.0	<49.9	<99.7	<74.8	<1.00	<1.00	<1.00	<1.00	---	<0.00948	---	---
	MW29-D	3/28/2024	<100	<140	<220	<180	<1.0	<1.0	<1.0	<1.0	---	---	---	---
MW-30	MW-30	1/12/2018	**719**	<49.9	<99.9	<74.9	**53.6**	**1.87**	<1.00	**12.1**	<1.00	<0.250	<1.00	---
	MW-30	5/25/2018	**311**	<49.9	<99.7	<74.8	**55.5**	**1.41**	<1.00	**7.53**	---	<0.00999	---	---
	MW-30	8/23/2018	**161**	<49.7	**115**	**140**	<1.00	<1.00	<1.00	**4.89**	---	<0.0100	---	---
	MW-30	11/27/2018	**150**	<49.8	<99.6	<74.7	**1.9**	<1.00	<1.00	**5.13**	---	<0.00988	---	---
	MW-30[7]	3/27/2024	---	<210	<210	<210	---	---	---	---	---	---	---	---
	MW-30	3/27/2024	<100	<130	<210	<170	**2.1**	<1.00	<1.00	<1.00	---	---	---	---

Notes:

Only those analytes detected or specifically targeted for evaluation are included in the table. Refer to the laboratory reports in Appendix A for full list of analytes and analytical methods.

[1]For analytes without positive detections, a value of one-half of the practical quantitation limit indicated is assigned for that analyte when calculating the sum of diesel and oil-range petroleum hydrocarbons.

[2]When concentrations of multple xylene isomers are reported by the laboratory, for analytes without positive detections, a value of one-half of the practical quantitation limit indicated is assigned for that analyte when calculating total xylenes.

[3]Cleanup levels selected in the Remedial Investigation Report (G-Logics 2020).

[4]Aquatic Life Protective Value for Marine Water from Ecology Implementation Memorandum #23.

[5]MTCA Standard Method A Cleanup Levels for Groundwater, Chapter 173-340 Washington Administrative Code, Table 720-1.

[6]Most stringent MTCA Method B groundwater cleanup level.

[7]Sample analyzed using silica gel cleanup.

<101	The analyte was not detected at a concentration above the indicated reporting limit.
270	Bold value indicates contaminant detected.
4,150	Bold value and yellow shading indicates concentration exceeds applicable cleanup level.
<250	Reporting limit is greater than the applicable cleanup level.
---	Sample not analyzed.
J	Sample result considered estimated because of quality assurance/quality control exceptions.
MTCA	Model Toxics Control Act
NE	Not established
RI	Remedial investigation

APPENDIX A

MARCH 2024 GROUNDWATER MONITORING DATA FORMS

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : IP-4	**Project Number: 01-0410-S**	**Sampling Date:** 3/29/24
Total Depth (ft): **14**	Water Volume in Casing (gal): 1.91	Sampler: ~~MB~~ CS HVS
Well Screen Interval (ft): **8-14**	Purge Method: Low Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **3**	End Depth to Water (ft): 9.57	
Tubing Intake Depth: 12.0	Calculated Purge Volume (gal): 5.73	Well Conditions:
Starting Depth to Water (ft): 8.79	Total Volume Purged (gal): 2.1	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1200	12.4	6.58	-30.9	0.545	9.21	3.07	8.95	0.25	
1203	12.4	6.54	-64.9	0.536	2.36	1.34	~~9.01~~	~~0.30~~	0.99 CS 3-29
1206	12.4	6.53	-73.0	0.534	9.43	1.05	9.03	~~7.55~~	0.45 CS 3-29
1209	12.4	6.52	-79.5	0.534	8.92	0.82	9.05	—	0.52 CS 3-29
1212	12.4	6.52	-86.4	0.534	9.17	0.64	9.08	0.60	
1215	12.4	6.52	-88.8	0.533	8.27	0.52	9.12	0.70	
1218	12.4	6.51	-92.6	0.532	7.65	0.48	9.14	0.80	
1221	12.4	6.51	-95.4	0.533	7.05	0.41	9.12	0.90	
1224	12.4	6.51	-97.9	0.533	7.02	0.34	9.12	1.00	
1227	12.5	6.50	-99.8	0.535	7.11	0.31	9.12	1.10	
1230	12.5	6.51	-102.0	0.535	7.48	0.27	9.16	1.20	
1233	12.5	6.51	-102.8	0.536	7.18	0.26	9.20	1.30	
1236	12.5	6.51	-104.5	0.536	7.09	0.25	9.21	1.40	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

3"

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
TP-4	1245	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : IP-5	**Project Number: 01-0410-S**	**Sampling Date:** 3/29/24
Total Depth (ft): **24**	Water Volume in Casing (gal): 1.68	Sampler: HVS
Well Screen Interval (ft): **18-24**	Purge Method: Low Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 14.35	
Tubing Intake Depth: ~21	Calculated Purge Volume (gal): 5.04	Well Conditions:
Starting Depth to Water (ft): 13.70	Total Volume Purged (gal): ~~13~~ 1.1	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1041	13.4	7.23	79.0	1736	26.25	5.46	13.83	—	Slightly amber cloudy, petro odor
1044	13.4	7.21	36.1	1765	20.96	2.94	13.83	—	"
1047	13.4	7.20	-21.9	1780	19.21	2.08	13.86	—	"
1050	13.4	7.20	-50.2	1792	18.39	1.59	13.88	0.25	"
1053	13.5	7.20	-66.0	1799	17.99	1.32	13.90	—	"
1056	13.4	7.19	-75.9	1799	17.07	1.15	13.93	0.5	"
1059	13.4	7.19	-83.7	1789	1537	1.01	13.95	—	tinted amber color, petro odor
1102	13.5	7.19	-88.2	1781	14.69	0.93	13.96	—	"
1105	13.4	7.18	-92.6	1769	14.17	0.86	13.99	0.75	"
1108	13.4	7.18	-95.6	1759	13.24	0.81	14.01	—	"
1111	13.4	7.18	-98.1	1747	12.80	0.77	14.03	—	"
1114	13.5	7.18	-100.3	1733	11.76	0.73	14.05	0.9	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
IP-5	1125	See COC	3 VOAs 2 Ambers	HCl	Y
Dup-1	0800	"	"	"	—

Total Number of Sample Containers Collected: 10

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: strong petro odor, pressure when opening

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : TW-2	**Project Number: 01-0410-S**	**Sampling Date:** 3/29/24
Total Depth (ft): **10.2** field = 10.2	Water Volume in Casing (gal): 0.35	Sampler: HVS
Well Screen Interval (ft): **5-9**	Purge Method: Low-Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 7.60	
Tubing Intake Depth: ~9	Calculated Purge Volume (gal): 1.06	Well Conditions:
Starting Depth to Water (ft): 8.03	Total Volume Purged (gal): ~1.15	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0852	11.1	6.90	197.1	1092	37.42	7.19	8.32	—	slowed down pump, clear
0855	11.1	6.85	195.2	1125	27.38	4.87	8.37	—	slowed pump more, clear
0858	11.1	6.86	192.4	1136	21.17	4.06	8.41	—	slowed pump down, clear
0901	11.1	6.87	186.7	1146	22.45	3.49	8.43	—	clear
0904	11.2	6.86	176.8	1152	20.45	3.07	8.44	0.25	"
0907	11.2	6.86	160.0	1159	13.16	2.68	8.47	—	"
0910	11.2	6.86	148.0	1161	12.37	2.43	8.48	—	"
0913	11.3	6.86	135.8	1164	9.93	2.15	8.50	—	"
0916	11.3	6.87	125.1	1167	12.08	1.97	8.51	0.1	"
0919	11.3	6.87	116.3	1169	8.94	1.88	8.52	—	"
0922	11.3	6.87	106.3	1170	7.96	1.73	8.52	—	"
0925	11.4	6.86	95.5	1165	4.72	1.60	8.52	—	"
0928	11.4	6.87	83.9	1166	6.09	1.43	8.53	0.4	clear
0931	11.3	6.87	78.0	1162	3.89	1.34	8.53	—	"
0934	11.4	6.87	70.7	1158	3.52	1.24	8.54	0.5	"
0937	11.4	6.88	63.4	1151	3.15	1.15	8.55	—	"
0940	11.4	6.88	57.1	1140	2.29	1.10	8.55	—	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
TW-2	1005	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: Pump on lowest setting possible

TW-2 Continued

ATLAS GEOSCIENCES NW

see page 1

Groundwater Sampling Information

Well ID : TW-2 CONT	**Project Number:** 01-0410-S	**Sampling Date:** 3/29/24
Total Depth (ft):	Water Volume in Casing (gal):	Sampler:
Well Screen Interval (ft):	Purge Method:	Equipment:
Well Diameter (in):	End Depth to Water (ft):	
Tubing Intake Depth:	Calculated Purge Volume (gal):	Well Conditions:
Starting Depth to Water (ft):	Total Volume Purged (gal):	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Flow Rate	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	mL/min	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---	---
0943	11.4	6.88	51.8	1139	2.24	1.06	8.56	0.8	—	clear
0946	11.4	6.88	46.7	1138	2.06	1.04	8.56	—	—	"
0949	11.4	6.88	42.3	1139	2.06	1.00	8.57	1	—	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
				Total Number of Sample Containers Collected:	

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method:

Additional Comments:

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : TW-3	**Project Number: 01-0410-S**	**Sampling Date:** 3-29
Total Depth (ft): **10.2**	Water Volume in Casing (gal): 0.437	Sampler: CS ITVS
Well Screen Interval (ft): **5-9**	Purge Method: Low Flow/Dry	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft):	
Tubing Intake Depth: 8.5	Calculated Purge Volume (gal): 1.31	Well Conditions:
Starting Depth to Water (ft): ~~0.5~~ CS 7.52	Total Volume Purged (gal):	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1035	12.5	6.57	61.2	1.186	3.04	4.78	7.90	0.25	
1038	12.5	6.58	28.4	1.195	4.02	1.75	8.85	0.38	inlet lowered to 9.5
1043	12.5	6.59	-11.7	1.196	3.27	1.03	9.31	0.50	
1048	12.6	6.64	-75.7	1.196	3.46	0.69	9.96	0.65	
1053	12.6	6.66	-95.5	1.203	2.62	0.65	10.18	0.75	
1059								~~0.78~~	well purged dry
1113							10.02	0.78	~~DRY~~ well Not recovered
1130							10.00	0.78	"
1200							9.95	0.78	"
1230							9.93	0.78	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
				Total Number of Sample Containers Collected:	

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method:

Additional Comments: ~~tower~~ CS 3-29 5-minute parameter measure interval used due to low well volume above screen and very low flow rate

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-18	**Project Number: 01-0410-S**	**Sampling Date:** 3-28
Total Depth (ft): **16**	Water Volume in Casing (gal): 0.342	Sampler:
Well Screen Interval (ft): **11-16**	Purge Method: Low-flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 7.83	
Tubing Intake Depth: ~~13~~ 14	Calculated Purge Volume (gal): 1.026	Well Conditions:
Starting Depth to Water (ft): 7.65	Total Volume Purged (gal): 1.2	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0952	12.3	6.39	57.0	0.535	4.25	6.46	7.655	0	
0955	12.3	6.26	56.7	0.548	8.15	2.51	~~N/A~~	0.20	
0958	12.3	6.26	55.5	0.539	5.80	1.15	—	0.40	
1001	12.3	6.26	55.2	0.538	5.85	0.99	—	0.60	
1004	12.3	6.27	54.2	0.536	5.91	0.78	—	0.80	
1007	12.3	6.27	53.9	0.534	6.19	0.67	—	1.00	
1010	12.3	6.26	52.8	0.530	6.32	0.56	—	1.20	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW18	1010	—	5	HCl	N
			Total Number of Sample Containers Collected:		

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: orange-colored organic matter ejected from well during purge. Possible microbial mat. Sponge-like appearance

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-19	**Project Number: 01-0410-S**	**Sampling Date:** 3-28
Total Depth (ft): **20**	Water Volume in Casing (gal): 0.4759	Sampler: CS
Well Screen Interval (ft): **15-20**	Purge Method: Low-flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 9.77	
Tubing Intake Depth: ~~15~~	Calculated Purge Volume (gal): 1.4256	Well Conditions:
Starting Depth to Water (ft): 8.41	Total Volume Purged (gal): 1.50	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0826	12.7	6.31	98	0.324	60.21	4.72	8.41	0	
0831	12.7	6.32	54.1	0.402	17.82	2.25	—	0.25	
0836	12.5	6.33	34.7	0.408	12.88	1.60	—	0.48	
0841	12.5	6.33	27.4	0.417	6.56	1.07	—	0.65	
0846	12.5	6.27	13.6	0.422	4.61	0.74	—	0.80	
0851	12.5	6.29	3.3	0.423	5.14	0.65	—	0.95	
0856	12.5	6.21	-6.1	0.424	9.21	0.43	—	1.19	
0901	12.5	6.30	-7.7	0.423	10.30	0.46	—	1.36	
0906	12.5	6.26	-9.0	0.423	11.21	0.39	—	1.52	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW19	0905	—	3	HCl	N

Total Number of Sample Containers Collected:

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:
(5) ~~Samples~~ Measured 9.77 5-min interval

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-20	**Project Number: 01-0410-S**	**Sampling Date:** 3/28/24
Total Depth (ft): **20** field 19.15	Water Volume in Casing (gal): 0.37	Sampler: HVS
Well Screen Interval (ft): **15-20** ft	Purge Method: Low Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 11.50	
Tubing Intake Depth: ~18	Calculated Purge Volume (gal): 1.12	Well Conditions:
Starting Depth to Water (ft): 10.91	Total Volume Purged (gal): 1.6	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0930	12.8	6.50	71.6	692	1352.14	4.96	—	—	grayish-amber cloudy
0933	13.2	6.47	30.0	665	640.77	2.81	—	—	"
0936	13.3	6.47	3.2	610	398.63	2.08	—	0.25	clearing up
0939	13.4	6.47	-12.4	583	288.79	1.68	—	—	"
0942	13.5	6.47	-23.1	555	242.25	1.44	—	0.55	"
0945	13.5	6.47	-29.0	534	210.34	1.29	—	—	"
0948	13.4	6.46	-33.2	513	185.30	1.18	—	0.75	clear
0951	13.4	6.46	-36.5	496.8	148.46	1.09	—	—	"
0954	13.4	6.45	-39.0	482.5	119.02	1.03	—	1	"
0958	13.3	6.45	-41.3	466.7	88.32	0.96	—	—	clear
1001	13.4	6.44	-42.5	456.2	74.51	0.91	—	1.25	"
1004	13.4	6.44	-43.8	455.1	76.75	0.87	—	—	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-20	1015	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: 1" Well - can't take water level measurements while purging

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-21	**Project Number: 01-0410-S**	**Sampling Date:** 3-28
Total Depth (ft): **22**	Water Volume in Casing (gal): 3.83	Sampler: CS
Well Screen Interval (ft): **17-22**	Purge Method: Low flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 19.5	
Tubing Intake Depth: 19/19.5	Calculated Purge Volume (gal): 1.15	Well Conditions: Nearby sheen on asphalt
Starting Depth to Water (ft): 12.66	Total Volume Purged (gal): ~~1.5~~ 1.2	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1108	13.6	6.34	21.8	0.420	22.17	2.46	12.66	0	
1111	13.5	6.34	-19.8	0.435	10.65	1.21	—	0.15	
1114	13.5	6.34	-24.5	0.438	9.45	1.08	—	0.30	
1117	13.5	6.34	-35.5	0.441	6.89	0.84	—	0.45	
1120	13.6	6.34	-43.2	0.444	5.10	0.70	—	0.60	
1123	13.6	6.34	-53.9	0.450	4.55	0.55	—	0.75	
1126	13.7	6.34	-56.9	0.451	4.43	0.49	—	0.90	
1129	13.7	6.34	-60.4	0.453	4.95	0.46	—	1.05	
1132	13.7	6.34	-63.7	0.454	5.01	0.44	—	1.20	
						~~19.5~~	19.5		

1.25

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-21	1135	—	8	HCL	N

Total Number of Sample Containers Collected:

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: Water level reached inlet during collection of ambers, inlet lowered six inches

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Groundwater Sampling Information

Well ID : MW-23	**Project Number: 01-0410-S**	**Sampling Date:** 3/27/24
Total Depth (ft): **15.5** field 15.21	Water Volume in Casing (gal): 0.97	Sampler: HVS
Well Screen Interval (ft): **5.5-15.5**	Purge Method: Low-Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 9.36	
Tubing Intake Depth: ~13	Calculated Purge Volume (gal): _____	Well Conditions:
Starting Depth to Water (ft): 9.26	Total Volume Purged (gal): 1.5	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0934	12.1	6.42	204.1	448.2	68.68	5.61	9.35	—	clear
0938	12.3	6.49	214.7	449.7	45.20	3.30	9.35	—	"
0940	12.3	6.48	215.7	449.5	30.80	2.69	9.35	0.25	"
0942	12.2	6.48	216.2	447.5	22.79	2.12	9.35	—	"
0944	12.2	6.48	216.0	443.9	18.57	1.77	9.36	0.5	"
0946	12.2	6.48	215.4	439.3	13.36	1.52	9.36	—	"
0948	12.3	6.48	214.3	430.9	10.92	1.36	9.36	—	"
0950	12.2	6.48	213.2	420.6	6.43	1.23	9.36	0.8	clear
0952	12.2	6.48	212.3	414.8	5.33	1.14	9.36	—	"
0954	12.2	6.48	210.9	406.4	4.00	1.06	9.36	1	"
0956	12.1	6.47	210.2	403.5	3.39	1.01	9.36	—	"
0958	12.1	6.47	209.5	402.5	3.94	0.95	9.36	—	"
1000	12.3	6.47	208.6	403.4	4.21	0.92	9.36	1.25	clear

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-23	1010	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

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Groundwater Sampling Information

Well ID : MW-24	**Project Number:** 01-0410-S	**Sampling Date:** 3/28/24
Total Depth (ft): 13.65 → field 11.75	Water Volume in Casing (gal): 0.11	Sampler: HVS
Well Screen Interval (ft): 8.65-13.65	Purge Method: 3 well volumes	Equipment: YSI + flow through cell peri-pump
Well Diameter (in): 1	End Depth to Water (ft): 11.73	
Tubing Intake Depth: ~11	Calculated Purge Volume (gal): 3WV = 0.32	Well Conditions:
Starting Depth to Water (ft): 9.14	Total Volume Purged (gal): 0.4	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0816	11.0	6.36	166.9	983	34.32	6.62	—	—	clear, slight petro odor
0818	10.9	6.33	177.2	999	27.38	4.37	—	—	"
0820	10.9	6.36	179.8	1022	8.15	3.33	—	—	"
0822	10.9	6.37	180.0	1039	5.52	2.65	—	0.25	"
0824	10.9	6.37	178.3	1046	3.58	2.31	—	—	"
0826	11.0	6.38	175.3	1054	3.12	2.04	—	—	"
0828	11.0	6.37	171.4	1049	4.46	1.84	—	—	"
0830	11.0	6.38	168.5	1048	4.94	1.82		0.5	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-24	0840	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

1" well - not able to take water levels while purging

running dry - hit > 3 well volumes, sampling

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Groundwater Sampling Information

Well ID : MW-24D	**Project Number: 01-0410-S**	**Sampling Date:** 3/27/24
Total Depth (ft): **25**	Water Volume in Casing (gal): 0.44	Sampler: HVS
Well Screen Interval (ft): **20-25** field 24.05	Purge Method: Low Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 13.89	
Tubing Intake Depth: ~23	Calculated Purge Volume (gal): —	Well Conditions:
Starting Depth to Water (ft): 13.43 @1057	Total Volume Purged (gal): 1.1	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1105	13.3	6.39	133.6	677	203.41	6.01	—	—	Slightly cloudy
1107	13.4	6.42	-6.9	692	133.32	3.49	—	—	"
1109	13.4	6.43	-32.0	676	87.63	2.57	—	0.25	clear, slight petro odor
1111	13.7	6.44	-48.3	656	899.61	1.89	—	—	clear "
1113	13.7	6.44	-54.9	638	888.28	1.66	—	0.5	clear "
1115	13.7	6.44	-61.0	626	871.90	1.47	—	—	clear "
1117	13.7	6.44	-65.4	611	868.37	1.34	—	—	clear "
1119	13.8	6.44	-69.2	605	870.60	1.21	—	0.75	clear "
1121	13.8	6.44	-71.4	599	870.53	1.15	—	—	clear "
1123	13.9	6.44	-73.3	592	871.36	1.09	—	—	" "
1125	13.9	6.44	-75.0	587	869.82	1.05	—	—	" "

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-24D	1135	See COC	2 Ambers 3 VOAs	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: 1" well - can't take water levels while purging
slight sheen in purge bucket

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Groundwater Sampling Information

Well ID : MW-25	**Project Number: 01-0410-S**	**Sampling Date:** 3/27/24
Total Depth (ft): **14**, field 13.83	Water Volume in Casing (gal): 0.23	Sampler: HKS
Well Screen Interval (ft): **9-14**	Purge Method: Low Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 8.13	
Tubing Intake Depth: ~12	Calculated Purge Volume (gal): —	Well Conditions:
Starting Depth to Water (ft): 8.17	Total Volume Purged (gal): 1.25	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0823	12.0	6.25	224.8	396.5	74.63	5.82	—	—	clear
0825	11.9	6.24	228.3	400.2	73.10	4.83	—	—	"
0827	12.1	6.25	230.4	403.2	70.07	4.16	—	—	"
0829	12.1	6.26	231.9	412.5	68.39	3.67	—	0.25	"
0831	12.0	6.27	232.9	416.3	70.11	3.36	—	—	"
0833	11.9	6.28	233.9	423.9	73.34	3.08	—	—	"
0835	12.1	6.29	234.1	430.1	58.09	2.85	—	—	"
0837	12.1	6.30	234.4	449.5	31.61	2.50	—	0.5	clear
0839	12.2	6.30	234.4	438.1	43.53	2.41	—	—	"
0841	12.2	6.30	234.3	448.6	27.19	2.25	—	—	"
0843	12.2	6.32	234.5	455.9	17.96	2.10	—	—	"
0845	12.1	6.31	234.5	456.7	14.61	1.93	—	0.75	clear
0847	12.2	6.32	234.4	457.9	11.91	1.86	—	—	"
0849	12.1	6.32	234.3	459.3	9.48	1.79	—	—	"
0851	12.1	6.32	234.1	457.6	8.53	1.76	—	1	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-25	0900	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Onsite

Additional Comments: water level meter doesn't fit w/ tubing - 1" ne!!

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Groundwater Sampling Information

Well ID : MW-26S	**Project Number: 01-0410-S**	**Sampling Date:** 3/29/24
Total Depth (ft): **12** field 11.70	Water Volume in Casing (gal): 0.74	Sampler: HVS
Well Screen Interval (ft): **7-12**	Purge Method: Low-Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 7.48	
Tubing Intake Depth: ~10	Calculated Purge Volume (gal): 2.22	Well Conditions:
Starting Depth to Water (ft): 7.45	Total Volume Purged (gal): 1.2	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
0744	10.9	6.82	166.9	276.2	41.49	8.89	7.50	—	clear
0747	10.8	6.54	182.8	260.1	29.07	7.69	7.49	—	"
0750	10.8	6.46	190.2	257.3	24.16	7.09	7.48	0.25	"
0753	10.8	6.45	194.3	263.4	14.79	6.30	7.49	—	"
0756	10.9	6.44	196.2	264.7	14.36	5.92	7.49	0.5	"
0759	10.9	6.45	197.3	269.3	9.76	5.50	7.50	—	"
0802	11.0	6.45	198.0	273.4	7.63	5.14	7.50	0.75	"
0805	10.9	6.45	198.2	277.8	6.81	4.86	7.50	—	"
0808	10.9	6.45	198.3	279.3	5.40	4.56	7.50	—	"
0811	10.9	6.46	198.1	282.3	5.11	4.41			

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-26S	0820	See COC	3 VOAs 2 Ambers	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-27S	**Project Number: 01-0410-S**	**Sampling Date:** 7-29
Total Depth (ft): **12**	Water Volume in Casing (gal): 0.658	Sampler: CS
Well Screen Interval (ft): **7-12**	Purge Method: Low flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft):	
Tubing Intake Depth: 10	Calculated Purge Volume (gal): 1.98	Well Conditions:
Starting Depth to Water (ft): 7.96	Total Volume Purged (gal):	Bolts ~~rust~~ bug but working

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
755	11.7	6.70	141.9	0.275	3.32	5.53	7.96	0	
758	11.6	6.65	142.5	0.274	4.56	3.93	8.02	0.12	
801	11.7	6.54	145.1	0.278	3.43	2.11	8.02	0.25	
804	11.6	6.53	145.3	0.279	3.26	1.62	8.02	0.35	
807	11.6	6.53	144.9	0.280	3.47	1.26	8.04	0.56	
810	11.7	6.52	144.7	0.281	3.64	1.17	8.05	0.60	
813	11.7	6.53	143.7	0.281	3.99	0.97	8.03	0.75	
816	11.7	6.53	143.6	0.281	4.30	0.90	8.05	0.85	
819	11.7	6.53	143.0	0.282	4.04	0.78	8.03	0.95	
822	11.8	6.53	142.4	0.284	4.30	0.71	8.05	1.10	
825	11.9	6.53	142.1	0.283	4.27	0.69	8.05	1.25	
828	11.8	6.53	141.2	0.285	4.74	0.62	8.05	1.85	
831	11.8	6.53	141.1	0.285	4.91	0.59	8.05	1.5	
834	11.8	6.53	140.7	0.285	4.98	0.57	8.05	1.6	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-27S	0835	—	5	HCl	N

Total Number of Sample Containers Collected:

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

Sheen in well vault at opening

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-27D	**Project Number: 01-0410-S**	**Sampling Date:** 3-29
Total Depth (ft): **21.5**	Water Volume in Casing (gal):	Sampler: CS
Well Screen Interval (ft): **14.5-21.5**	Purge Method:	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft):	
Tubing Intake Depth: 18	Calculated Purge Volume (gal):	Well Conditions:
Starting Depth to Water (ft): ~~11.98~~ 12.45 ~~11.98~~	Total Volume Purged (gal):	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
912	13.5	6.13	130.8	0.243	12.53	2.68	12.01	0.26	~2,125
915	13.7	6.11	103.6	0.243	12.93	1.80	12.02	~~0.35~~	0.35 CS 3-29
918	13.7	6.11	73.6	0.239	12.52	1.18	12.02	~~0.45~~	0.45 CS 3-29
921	13.8	6.12	55.7	0.236	10.23	0.80	11.99	0.55	
924	13.8	6.12	46.3	0.232	9.18	0.67	12.06	0.65	
927	13.8	6.13	33.1	0.224	7.55	0.56	12.00	0.80	
930	13.8	6.14	24.6	0.219	6.33	0.48	12.06	0.95	
933	13.9	6.15	20.0	0.216	6.02	0.45	12.02	1.05	
936	13.8	6.16	13.8	0.213	5.47	0.42	12.04	1.20	
939	13.9	6.17	8.4	0.208	4.88	0.37	12.06	1.35	
942	13.8	6.17	5.6	0.206	4.59	0.36	12.06	1.45	
945	13.9	6.17	3.8	0.205	4.42	0.35	12.06	1.60	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-27D	945	—	5	HCl	N

Total Number of Sample Containers Collected:

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method:

Additional Comments:

water in vault, Petro odors during draining of vault, water level in vault at ground surface, Heavy petro odor after unsealing well, not observed during purging

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-28S	**Project Number: 01-0410-S**	**Sampling Date:** 3/28/24
Total Depth (ft): **12**	Water Volume in Casing (gal): 0.76	Sampler:
Well Screen Interval (ft): **5-12**	Purge Method: LowFlow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 7.35	
Tubing Intake Depth:	Calculated Purge Volume (gal): 3.79	Well Conditions:
Starting Depth to Water (ft): 7.31	Total Volume Purged (gal): 0.6	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	° C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1315	12.0	6.68	29.0	315.1	24.88	7.34	7.31	—	clear
1318	11.9	6.63	33.0	309.2	7.44	6.24	7.35	—	"
1321	11.7	6.63	35.1	303.1	3.34	5.74	7.35	—	"
1324	11.6	6.62	37.2	299.3	2.10	5.48	7.37	0.25	"
1327	11.5	6.63	38.6	296.0	1.56	5.22	7.38	—	"
1330	11.6	6.62	40.4	295.5	1.26	5.09	7.37	—	"
1338	11.6	6.62	41.3	297.8	1.28	5.01	7.37		

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-28S	1345	See COC	3 VOAs 2 Amber	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments:

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-28D	**Project Number: 01-0410-S**	**Sampling Date:** 3-29
Total Depth (ft): **23**	Water Volume in Casing (gal): ~~0.396~~ 3.25	Sampler: CS
Well Screen Interval (ft): **18-23**	Purge Method: Low flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **2**	End Depth to Water (ft): 13.67	
Tubing Intake Depth: 20	Calculated Purge Volume (gal): ~~1.188~~ 3	Well Conditions:
Starting Depth to Water (ft): 13.38	Total Volume Purged (gal): ~~1.188~~ 1.35	One bolt did not bind

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
~~1255~~	14.0	6.58	43.1	0.052	16.32	6.67	13.44	0	0.5
1258	13.8	6.44	51.5	0.049	14.67	5.15	13.46	0.20	
1301	13.6	6.37	58.3	0.051	15.78	4.20	13.50	0.40	
1304	13.5	6.34	61.0	0.053	13.02	3.69	13.52	0.60	Speed reduced to stop drawdown
1307	13.7	6.33	63.3	0.058	10.62	3.18	13.55	0.75	
1310	13.6	6.32	63.7	0.058	10.54	2.97	13.58	0.90	
1313	13.4	6.32	63.7	0.059	9.76	2.78	13.60	1.05	
1316	13.4	6.31	63.8	0.061	9.75	2.60	13.62	1.20	
1319	13.2	6.30	63.2	0.063	9.23	2.53	13.63	1.35	

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-28D	1322	—	5	HCl	N

Total Number of Sample Containers Collected:

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method:

Additional Comments:

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-29D	**Project Number: 01-0410-S**	**Sampling Date:** 3/28/24
Total Depth (ft): **25** field 24.11	Water Volume in Casing (gal): 0.41	Sampler: HVS
Well Screen Interval (ft): **20-25**	Purge Method: Low flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 15.70	
Tubing Intake Depth: ~23'	Calculated Purge Volume (gal): 1.23	Well Conditions:
Starting Depth to Water (ft): 15.03	Total Volume Purged (gal): 1.75	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1153	13.1	6.46	52.9	313.1	227.76	6.14	—	—	amber cloudy
1156	13.5	6.32	56.9	308.1	190.68	3.29	—	—	slightly amber
1159 ~~1200~~	13.5	6.29	54.3	308.2	129.11	2.29	—	—	clear
1202	13.6	6.27	49.2	311.2	39.27	1.68	—	0.5	"
1205	13.5	6.27	46.5	311.9	28.35	1.53	—	—	"
1208	13.5	6.27	41.7	314.4	18.79	1.35	—	0.75	"
1211	13.5	6.27	36.5	316.2	14.15	1.21	—	—	"
1214	13.4	6.27	31.7	317.1	8.70	—	—	1	"
1217	13.4	6.27	26.9	317.7	8.81	1.05	—	—	"
1220	13.5	6.27	22.7	318.4	14.14	0.99	—	1.25	"
1223	13.7	6.27	18.7	319.4	7.92	0.94	—	—	"
1226	13.7	6.27	15.0	319.3	8.55	0.90	—	1.5	"

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-29D	1235	See COC	2 Ambers 3 VOAs	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / (Peristaltic) / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: 1" well - can't take water levels while purging

ATLAS GEOSCIENCES NW

Groundwater Sampling Information

Well ID : MW-30	**Project Number: 01-0410-S**	**Sampling Date:** 3/27/24
Total Depth (ft): **25**	Water Volume in Casing (gal): 0.48	Sampler: HKS
Well Screen Interval (ft): **20-25** field 24.5	Purge Method: Low-Flow	Equipment: **YSI and flow-through cell, peristaltic pump**
Well Diameter (in): **1**	End Depth to Water (ft): 15.63	
Tubing Intake Depth: ~23	Calculated Purge Volume (gal): —	Well Conditions:
Starting Depth to Water (ft): 12.54 @ 1150	Total Volume Purged (gal): 1.5	

Groundwater Parameter Monitoring

Time	TEMP	pH	ORP	COND	TURB	DO	DTW	Volume	Notes
	°C	SU	mV	mS/cm	NTU	mg/L	feet	gallons	(Appearance, Odors, Etc.)
	± 3%	± 0.1	± 10	± 3%	± 10%	± 10%	<0.33	---	---
1157	13.3	6.34	4.5	444.1	308.45	5.87	—	—	orangish-cloudy
1159	13.8	6.31	8.0	459.6	290.96	3.54	—	—	" slight petro odor
1201	13.9	6.31	7.5	455.2	341.41	2.46	—	0.25	" "
1203	14.0	6.32	6.2	448.3	307.21	1.94	—	—	" "
1205	14.0	6.32	4.9	443.0	242.34	1.61	—	—	" "
1207	14.0	6.32	3.5	437.1	195.58	1.41	—	0.5	" "
1209	14.0	6.32	2.0	433.4	169.39	1.25	—	—	" "
1211	14.1	6.32	0.3	430.5	140.84	1.14	—	0.75	" "
1213	14.0	6.32	-1.3	427.8	121.72	1.07	—	—	clearing up
1215	14.0	6.32	-2.8	423.9	97.84	1.00	—	1	" "
1217	14.0	6.32	-4.1	423.1	80.65	0.94	—	—	" "
1219	14.1	6.32	-5.4	422.2	62.09	0.90	—	—	clear, slight orange hue
1221	14.1	6.32	-7.0	421.3	52.08	0.85	—	1.25	" "

Casing Volume in Gallons: 1" Diam = 0.041 gal/ft, 2" Diam = 0.163 gal/ft, 4" Diam = 0.653 gal/ft

Sample Collection Information

Sample Number	Sample Time	Analytes	Sample Containers	Preservatives	Duplicate (Y/N)
MW-30	1230	See COC	2 Ambers 3 VOAs	HCl	N

Total Number of Sample Containers Collected: 5

Collection Method: Bailer / Peristaltic / Submersible / Other:

Purge Water Disposal Method: Drum

Additional Comments: 1" well - can't take water levels while purging

APPENDIX B

ANALYTICAL LABORATORY REPORTS

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 9, 2024

Tom Commarata
G-Logics an Atlas Geosciences NW Company
40 2nd Avenue SE
Issaquah, WA 98027-3452

Re: Analytical Data for Project 01-0410-S
Laboratory Reference No. 2403-425

Dear Tom:

Enclosed are the analytical results and associated quality control data for samples submitted on March 29, 2024.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

Case Narrative

Samples were collected on March 27, 28, and 29, 2024 and received by the laboratory on March 29, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-25**					
Laboratory ID:	03-425-01					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*65-122*				
Client ID:	**MW-23**					
Laboratory ID:	03-425-02					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*65-122*				
Client ID:	**MW-24D**					
Laboratory ID:	03-425-03					
Benzene	**1.4**	1.0	EPA 8021B	4-8-24	4-8-24	
Toluene	**1.8**	1.0	EPA 8021B	4-8-24	4-8-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
m,p-Xylene	**5.5**	1.0	EPA 8021B	4-8-24	4-8-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Gasoline	**150**	100	NWTPH-Gx	4-8-24	4-8-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*65-122*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-30**					
Laboratory ID:	03-425-04					
Benzene	**2.1**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*65-122*				
Client ID:	**MW-24**					
Laboratory ID:	03-425-06					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*65-122*				
Client ID:	**MW-19**					
Laboratory ID:	03-425-07					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*65-122*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-18**					
Laboratory ID:	03-425-08					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*65-122*				
Client ID:	**MW-20**					
Laboratory ID:	03-425-09					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*65-122*				
Client ID:	**MW-21**					
Laboratory ID:	03-425-10					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*65-122*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-29D**					
Laboratory ID:	03-425-11					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*65-122*				
Client ID:	**MW-28D**					
Laboratory ID:	03-425-12					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*65-122*				
Client ID:	**MW-28S**					
Laboratory ID:	03-425-13					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*65-122*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-26S**					
Laboratory ID:	03-425-14					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*65-122*				
Client ID:	**MW-27S**					
Laboratory ID:	03-425-15					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*65-122*				
Client ID:	**MW-27D**					
Laboratory ID:	03-425-16					
Benzene	**2.2**	1.0	EPA 8021B	4-8-24	4-8-24	
Toluene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Gasoline	**ND**	100	NWTPH-Gx	4-8-24	4-8-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*65-122*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TW-2**					
Laboratory ID:	03-425-17					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*85*	*65-122*				
Client ID:	**IP-5**					
Laboratory ID:	03-425-18					
Benzene	**1300**	50	EPA 8021B	4-3-24	4-3-24	
Toluene	**910**	50	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**780**	50	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**1700**	50	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**310**	50	EPA 8021B	4-3-24	4-3-24	
Gasoline	**17000**	5000	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*65-122*				
Client ID:	**IP-4**					
Laboratory ID:	03-425-19					
Benzene	**23**	1.0	EPA 8021B	4-8-24	4-8-24	
Toluene	**7.6**	1.0	EPA 8021B	4-8-24	4-8-24	
Ethylbenzene	**2900**	50	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**5900**	100	EPA 8021B	4-4-24	4-4-24	
o-Xylene	**130**	50	EPA 8021B	4-3-24	4-3-24	
Gasoline	**55000**	5000	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*65-122*				

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GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TW-3**					
Laboratory ID:	03-425-20					
Benzene	**1600**	50	EPA 8021B	4-3-24	4-3-24	
Toluene	**20**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**1300**	50	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**950**	50	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**21**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**9400**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*116*	*65-122*				
Client ID:	**Dup-1**					
Laboratory ID:	03-425-21					
Benzene	**1400**	50	EPA 8021B	4-3-24	4-3-24	
Toluene	**940**	50	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**820**	50	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**1700**	50	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**320**	50	EPA 8021B	4-3-24	4-3-24	
Gasoline	**18000**	5000	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84068*	*65-122*				

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GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0403W1					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*65-122*				
Laboratory ID:	MB0403W2					
Benzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Toluene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-3-24	4-3-24	
Gasoline	**ND**	100	NWTPH-Gx	4-3-24	4-3-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*65-122*				
Laboratory ID:	MB0404W1					
Benzene	**ND**	1.0	EPA 8021B	4-4-24	4-4-24	
Toluene	**ND**	1.0	EPA 8021B	4-4-24	4-4-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-4-24	4-4-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-4-24	4-4-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-4-24	4-4-24	
Gasoline	**ND**	100	NWTPH-Gx	4-4-24	4-4-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*65-122*				
Laboratory ID:	MB0408W1					
Benzene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Toluene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Ethylbenzene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
m,p-Xylene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
o-Xylene	**ND**	1.0	EPA 8021B	4-8-24	4-8-24	
Gasoline	**ND**	100	NWTPH-Gx	4-8-24	4-8-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*65-122*				

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GASOLINE RANGE ORGANICS/BTEX
NWTPH-Gx/EPA 8021B
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-425-01										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethylbenzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*94*	*83*	*65-122*			
Laboratory ID:	03-425-02										
	ORIG	DUP									
Benzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Toluene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Ethylbenzene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
m,p-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
o-Xylene	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*89*	*88*	*65-122*			
SPIKE BLANKS											
Laboratory ID:	SB0403W1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**50.1**	**54.0**	50.0	50.0		**100**	**108**	81-118	7	12	
Toluene	**47.4**	**51.3**	50.0	50.0		**95**	**103**	82-119	8	12	
Ethylbenzene	**47.5**	**51.2**	50.0	50.0		**95**	**102**	81-118	7	12	
m,p-Xylene	**46.9**	**50.4**	50.0	50.0		**94**	**101**	82-118	7	12	
o-Xylene	**47.6**	**51.1**	50.0	50.0		**95**	**102**	81-119	7	11	
Surrogate:											
Fluorobenzene						*92*	*91*	*65-122*			

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GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Product
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**IP-7-Product**					
Laboratory ID:	03-425-05					
Gasoline	**740000**	23000	NWTPH-Gx	4-4-24	4-4-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	---	*65-126*				S

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GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Product
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0404S1					
Gasoline	**ND**	5.0	NWTPH-Gx	4-4-24	4-4-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*65-126*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	03-425-05									
	ORIG	DUP								
Gasoline	**744000**	**707000**	NA	NA		NA	NA	5	30	
Surrogate:										
Fluorobenzene						--- ----	*65-126*			S,S

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-25**					
Laboratory ID:	03-425-01					
Diesel Range Organics	**ND**	0.14	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.22	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*70*	*50-150*				
Client ID:	**MW-23**					
Laboratory ID:	03-425-02					
Diesel Range Organics	**ND**	0.14	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.22	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				
Client ID:	**MW-24D**					
Laboratory ID:	03-425-03					
Diesel Range Organics	**ND**	0.15	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*68*	*50-150*				
Client ID:	**MW-30**					
Laboratory ID:	03-425-04					
Diesel Range Organics	**ND**	0.13	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*126*	*50-150*				
Client ID:	**MW-30**					
Laboratory ID:	03-425-04					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	X2
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	X2
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*120*	*50-150*				
Client ID:	**MW-24**					
Laboratory ID:	03-425-06					
Diesel Range Organics	**0.19**	0.13	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**0.46**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-24**					
Laboratory ID:	03-425-06					
Diesel Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	X2
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	X2
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**MW-19**					
Laboratory ID:	03-425-07					
Diesel Range Organics	**ND**	0.15	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.24	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**MW-18**					
Laboratory ID:	03-425-08					
Diesel Range Organics	**ND**	0.18	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.28	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**MW-20**					
Laboratory ID:	03-425-09					
Diesel Range Organics	**ND**	0.13	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**0.22**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**MW-21**					
Laboratory ID:	03-425-10					
Diesel Range Organics	**0.18**	0.17	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**0.39**	0.28	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**MW-29D**					
Laboratory ID:	03-425-11					
Diesel Range Organics	**ND**	0.14	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.22	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-28D**					
Laboratory ID:	03-425-12					
Diesel Range Organics	**0.18**	0.15	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil	**0.98**	0.24	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				
Client ID:	**MW-28S**					
Laboratory ID:	03-425-13					
Diesel Range Organics	**ND**	0.14	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.23	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**MW-26S**					
Laboratory ID:	03-425-14					
Diesel Range Organics	**ND**	0.13	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**MW-27S**					
Laboratory ID:	03-425-15					
Diesel Range Organics	**ND**	0.17	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.28	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**MW-27D**					
Laboratory ID:	03-425-16					
Diesel Range Organics	**0.22**	0.16	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.25	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**TW-2**					
Laboratory ID:	03-425-17					
Diesel Range Organics	**ND**	0.14	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.22	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**IP-5**					
Laboratory ID:	03-425-18					
Diesel Range Organics	**ND**	1.8	NWTPH-Dx	4-2-24	4-2-24	M1,U1
Lube Oil Range Organics	**0.22**	0.21	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**IP-4**					
Laboratory ID:	03-425-19					
Diesel Range Organics	**ND**	6.1	NWTPH-Dx	4-2-24	4-2-24	M1,U1
Lube Oil	**0.53**	0.24	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**TW-3**					
Laboratory ID:	03-425-20					
Diesel Range Organics	**ND**	2.8	NWTPH-Dx	4-4-24	4-5-24	M1,U1
Lube Oil Range Organics	**0.65**	0.17	NWTPH-Dx	4-4-24	4-5-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				
Client ID:	**Dup-1**					
Laboratory ID:	03-425-21					
Diesel Range Organics	**ND**	1.5	NWTPH-Dx	4-2-24	4-2-24	M1,U1
Lube Oil Range Organics	**0.37**	0.24	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*52*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0402W1					
Diesel Range Organics	**ND**	0.10	NWTPH-Dx	4-2-24	4-2-24	
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*102*	*50-150*				
Laboratory ID:	MB0402W1					
Diesel Range Organics	**ND**	0.16	NWTPH-Dx	4-2-24	4-2-24	X2
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	4-2-24	4-2-24	X2
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*110*	*50-150*				
Laboratory ID:	MB0404W1					
Diesel Range Organics	**ND**	0.10	NWTPH-Dx	4-4-24	4-4-24	
Lube Oil Range Organics	**ND**	0.16	NWTPH-Dx	4-4-24	4-4-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*58*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	03-425-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	40	
Surrogate:											
o-Terphenyl						*126*	*114*	*50-150*			
Laboratory ID:	SB0402W1										
	ORIG	DUP									
Diesel Fuel #2	**0.394**	**0.385**	NA	NA		NA		NA	2	40	
Surrogate:											
o-Terphenyl						*87*	*71*	*50-150*			
Laboratory ID:	SB0402W1										
	ORIG	DUP									
Diesel Fuel #2	**0.441**	**0.349**	NA	NA		NA		NA	23	40	X2
Surrogate:											
o-Terphenyl						*93*	*75*	*50-150*			
Laboratory ID:	SB0404W1										
	ORIG	DUP									
Diesel Fuel #2	**0.408**	**0.465**	NA	NA		NA		NA	13	40	
Surrogate:											
o-Terphenyl						*97*	*103*	*50-150*			

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**IP-7-Product**					
Laboratory ID:	03-425-05					
Diesel Range Organics	**ND**	160000	NWTPH-Dx	4-1-24	4-1-24	M1,U1
Lube Oil Range Organics	**ND**	100000	NWTPH-Dx	4-1-24	4-1-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0401P1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-1-24	4-1-24	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-1-24	4-1-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	SB0401P1										
	ORIG	DUP									
Diesel Fuel #2	**96.8**	**95.8**	NA	NA		NA		NA	1	40	
Surrogate:											
o-Terphenyl						*100*	*99*	*50-150*			

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

VOLATILE ORGANICS EPA 8260D

Matrix: Product
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**IP-7-Product**					
Laboratory ID:	03-425-05					
Methyl t-Butyl Ether	ND	89	EPA 8260D	4-2-24	4-2-24	
Benzene	310	89	EPA 8260D	4-2-24	4-2-24	
1,2-Dichloroethane	ND	89	EPA 8260D	4-2-24	4-2-24	
Toluene	8700	450	EPA 8260D	4-2-24	4-2-24	
1,2-Dibromoethane	ND	89	EPA 8260D	4-2-24	4-2-24	
Ethylbenzene	14000	89	EPA 8260D	4-2-24	4-2-24	
m,p-Xylene	58000	360	EPA 8260D	4-2-24	4-2-24	
o-Xylene	16000	89	EPA 8260D	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*106*	*75-130*				
Toluene-d8	*100*	*78-128*				
4-Bromofluorobenzene	*93*	*71-130*				

Date of Report: April 9, 2024
Samples Submitted: March 29, 2024
Laboratory Reference: 2403-425
Project: 01-0410-S

VOLATILE ORGANICS EPA 8260D
QUALITY CONTROL

Matrix: Product
Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0402P1					
Methyl t-Butyl Ether	ND	0.050	EPA 8260D	4-2-24	4-2-24	
Benzene	ND	0.050	EPA 8260D	4-2-24	4-2-24	
1,2-Dichloroethane	ND	0.050	EPA 8260D	4-2-24	4-2-24	
Toluene	ND	0.25	EPA 8260D	4-2-24	4-2-24	
1,2-Dibromoethane	ND	0.050	EPA 8260D	4-2-24	4-2-24	
Ethylbenzene	ND	0.050	EPA 8260D	4-2-24	4-2-24	
m,p-Xylene	ND	0.10	EPA 8260D	4-2-24	4-2-24	
o-Xylene	ND	0.050	EPA 8260D	4-2-24	4-2-24	
Surrogate:	*Percent Recovery*	*Control Limits*				
Dibromofluoromethane	*99*	*75-130*				
Toluene-d8	*97*	*78-128*				
4-Bromofluorobenzene	*95*	*71-130*				

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0402P1									
	SB	SBD	SB	SBD	SB	SBD				
Methyl t-Butyl Ether	**0.0512**	**0.0509**	0.0500	0.0500	102	102	73-125	1	17	
Benzene	**0.0449**	**0.0458**	0.0500	0.0500	90	92	80-122	2	18	
1,2-Dichloroethane	**0.0508**	**0.0517**	0.0500	0.0500	102	103	75-124	2	15	
Toluene	**0.0510**	**0.0507**	0.0500	0.0500	102	101	80-120	1	18	
1,2-Dibromoethane	**0.0542**	**0.0527**	0.0500	0.0500	108	105	80-122	3	20	
Ethylbenzene	**0.0518**	**0.0519**	0.0500	0.0500	104	104	80-120	0	15	
m,p-Xylene	**0.103**	**0.103**	0.100	0.100	103	103	80-120	0	15	
o-Xylene	**0.0528**	**0.0523**	0.0500	0.0500	106	105	80-120	1	15	
Surrogate:										
Dibromofluoromethane					*105*	*106*	*75-130*			
Toluene-d8					*102*	*102*	*78-128*			
4-Bromofluorobenzene					*99*	*99*	*71-130*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Atlas Geo NW / G-Logics
Project Number: 01-0410-S
Project Name: Boeing Field Chevron
Project Manager: Tom Cammarata
Sampled by: HVS / CES

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard ~~(7 Days)~~ 5 Days
☐ _____ (other)

Laboratory Number: 03-425

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021☒ 8260☐)	NWTPH-Gx	NWTPH-Dx (SG Clean-up☐)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	NWTPH-Dx WITH SG Cleanup	* See comment			% Moisture
1	MW-25	3/27/24	0900	GW	5		X		X														X				
2	MW-23	↓	1010	↓	5		X		X																		
3	MW-24D		1135		5		X		X																		
4	MW-30		1230		5		X		X														X				
5	IP-7-Product		1258	Product	2			X	X															X			
6	MW-24	3/28/24	0840	GW	5		X		X														X				
7	MW-19	↓	0908	↓	5		X		X																		
8	MW-18		1010		5		X		X																		
9	MW-20		1015		5		X		X																		
10	MW-21	↓	1135	↓	5		X		X																		

	Signature	Company	Date	Time
Relinquished	[signature]	Atlas Geo NW	3/29/24	1452
Received	[signature]	G-Logics	3/29/24	1452
Relinquished	[signature]	G-Logics	3/29/24	16:00
Received	Nichelle B. Ellis	OSE	3/29/24	1600
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* IP-7-Product: BTEX, Methyl butyl ether, 1,2-Dibromoethene, and 1,2-Dichloroethane by 8260D

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☒ Electronic Data Deliverables (EDDs) ☒

Chain of Custody

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Project Name: Boeing Field Chevron
Project Manager: Tom Cammarata
Sampled by: HVS/CES

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard ~~(7 Days)~~ 5 Days
☐ _____ (other)

Laboratory Number: 03-425

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021 ~~X~~ 8260☐)	NWTPH-Gx	NWTPH-Dx (SG Clean-up☐)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	~~TNT~~				% Moisture
11	MW-29D	3/28/24	1235	GW	5		X		X																		
12	MW-28D	3/28/24	1322	GW	5		X		X																		
13	MW-28S	3/28/24	1345	GW	5		X		X																		
14	MW-26S	3/29/24	0820	GW	5		X		X																		
15	MW-27S	3/29/24	0835	GW	5		X		X																		
16	MW-27D	3/29/24	0945	GW	5		X		X																		
17	~~MT~~ TW-2	3/29/24	1005	GW	5		X		X																		
18	IP-5	3/29/24	1125	GW	5		X		X																		
19	IP-4	3/29/24	1245	GW	5		X		X																		
20	* TW-3	3/29/24	1335	GW	3		X		X																		

	Signature	Company	Date	Time
Relinquished	Hannah Spera	Atlas Geo NW	3/29/24	1452
Received			3/29/24	14:52
Relinquished			3/29/24	16:00
Received	Nichelle Biffin	OSE	3/29/24	1600
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* insufficient volume for ambers, try to run Dx w/VOAs (Tom to follow up)

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☒ Electronic Data Deliverables (EDDs) ☐

Chain of Custody

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14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Atlas Geo NW/G-Logics
Project Number: 01-0410-S
Project Name: Boeing Field Chevron
Project Manager: Tom Cammarata
Sampled by: HVS/CES

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard ~~(7 Days)~~ 5 Days
☐ _____ (other)

Laboratory Number: 03-425

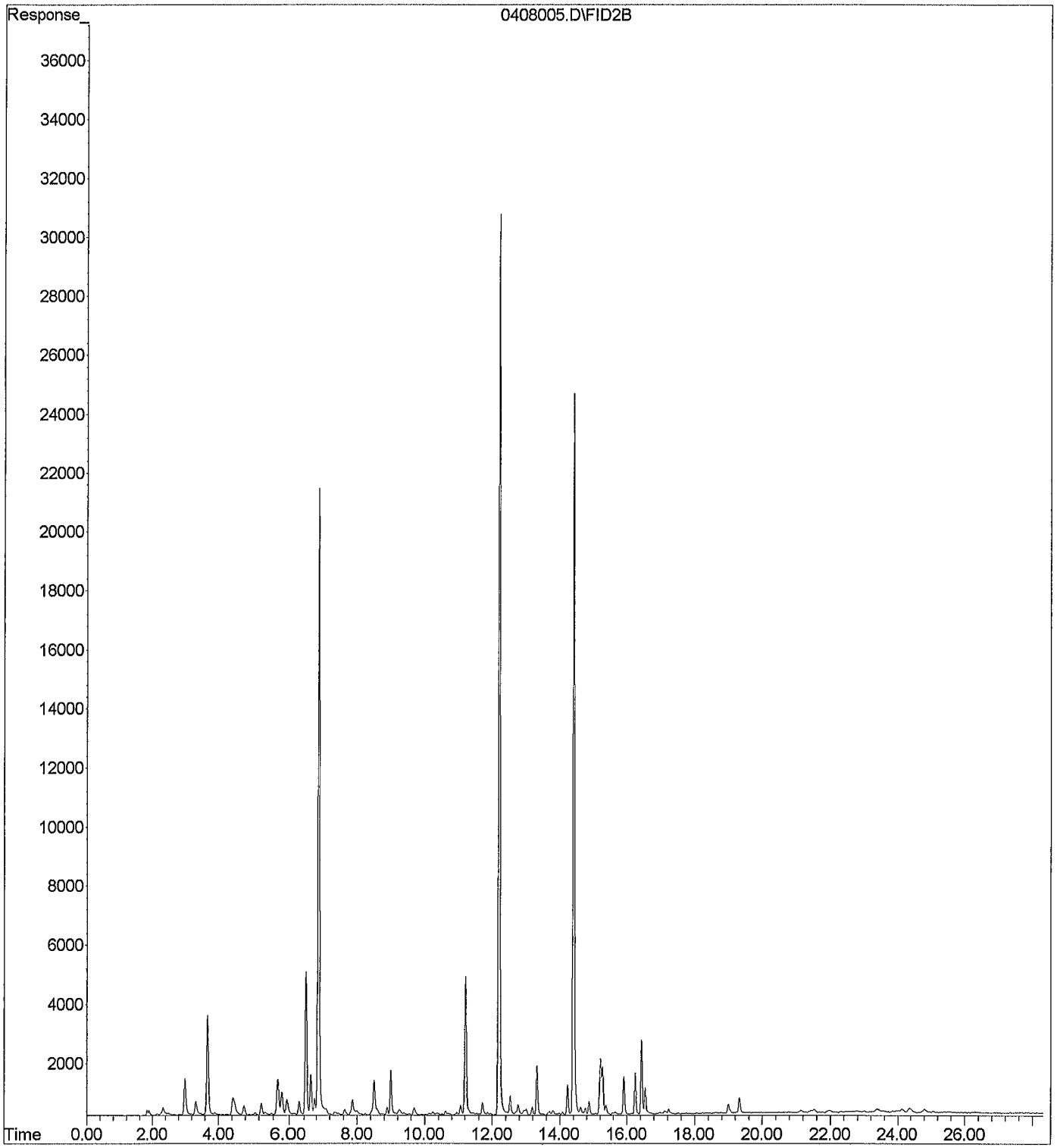
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021 ☒ 8260 ☐)	NWTPH-Gx	NWTPH-Dx (Acid / SG Clean-up ☐)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664					% Moisture
21	Dup-1	3/29/24	0800	GW	5		X		X																		

	Signature	Company	Date	Time
Relinquished	Hannah Apea	Atlas Geo NW	3/29/24	1452
Received	[illegible]	alpha	3/29/24	14:52
Relinquished	[illegible]	alpha	3/29/24	16:00
Received	Nichelle Baptiste	OSE	3/29/24	1600
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

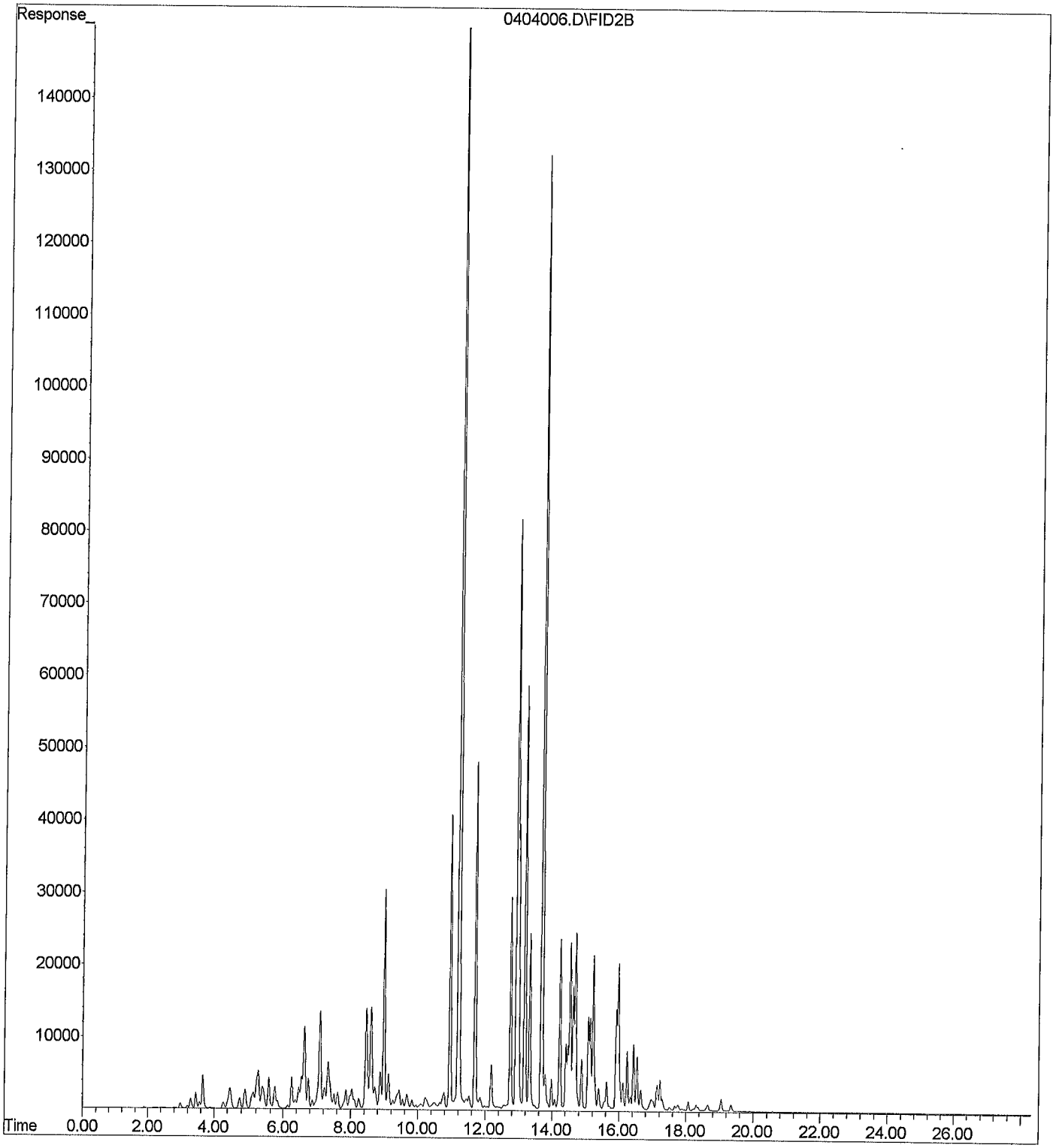
Comments/Special Instructions

Data Package: Standard ☒ Level III ☐ Level IV ☐
Chromatograms with final report ☒ Electronic Data Deliverables (EDDs) ☒

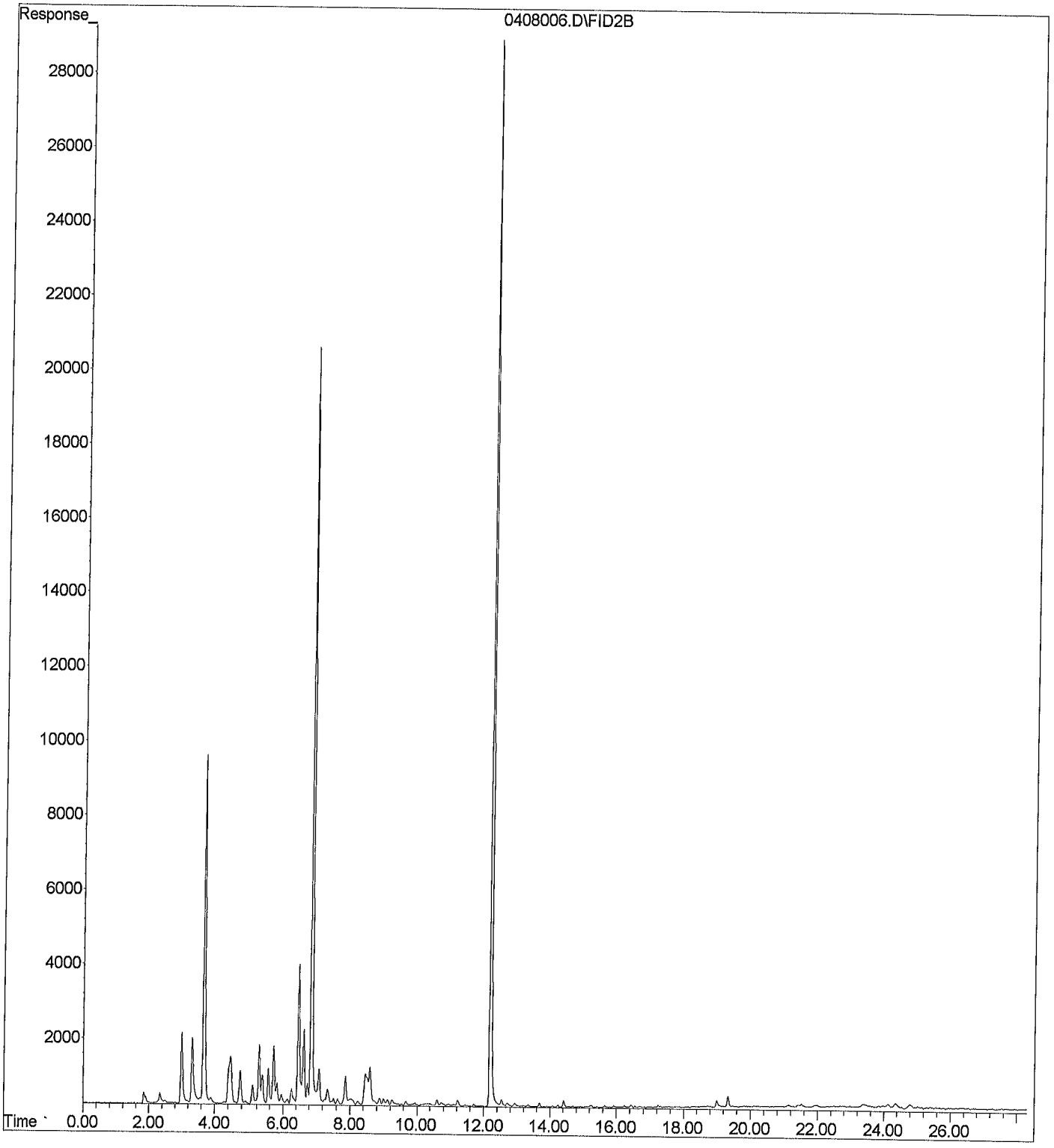
File : X:\BTEX\DARYL\DATA\D240408\0408005.D
Operator :
Acquired : 8 Apr 2024 15:26 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-03d RR
Misc Info :
Vial Number: 5



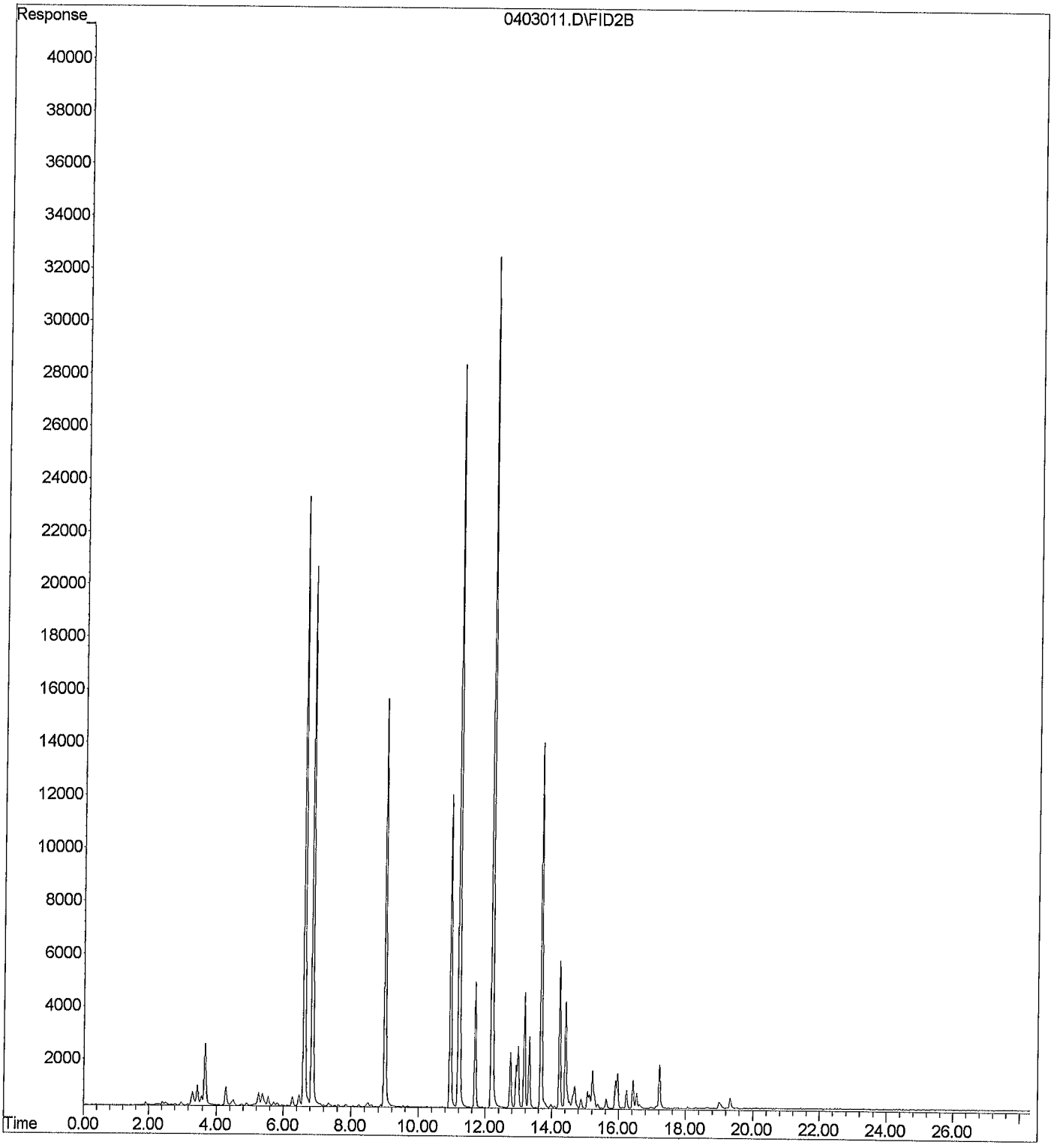
File : X:\BTEX\DARYL\DATA\D240404\0404006.D
Operator :
Acquired : 4 Apr 2024 15:12 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-05a 1:250,000
Misc Info :
Vial Number: 6



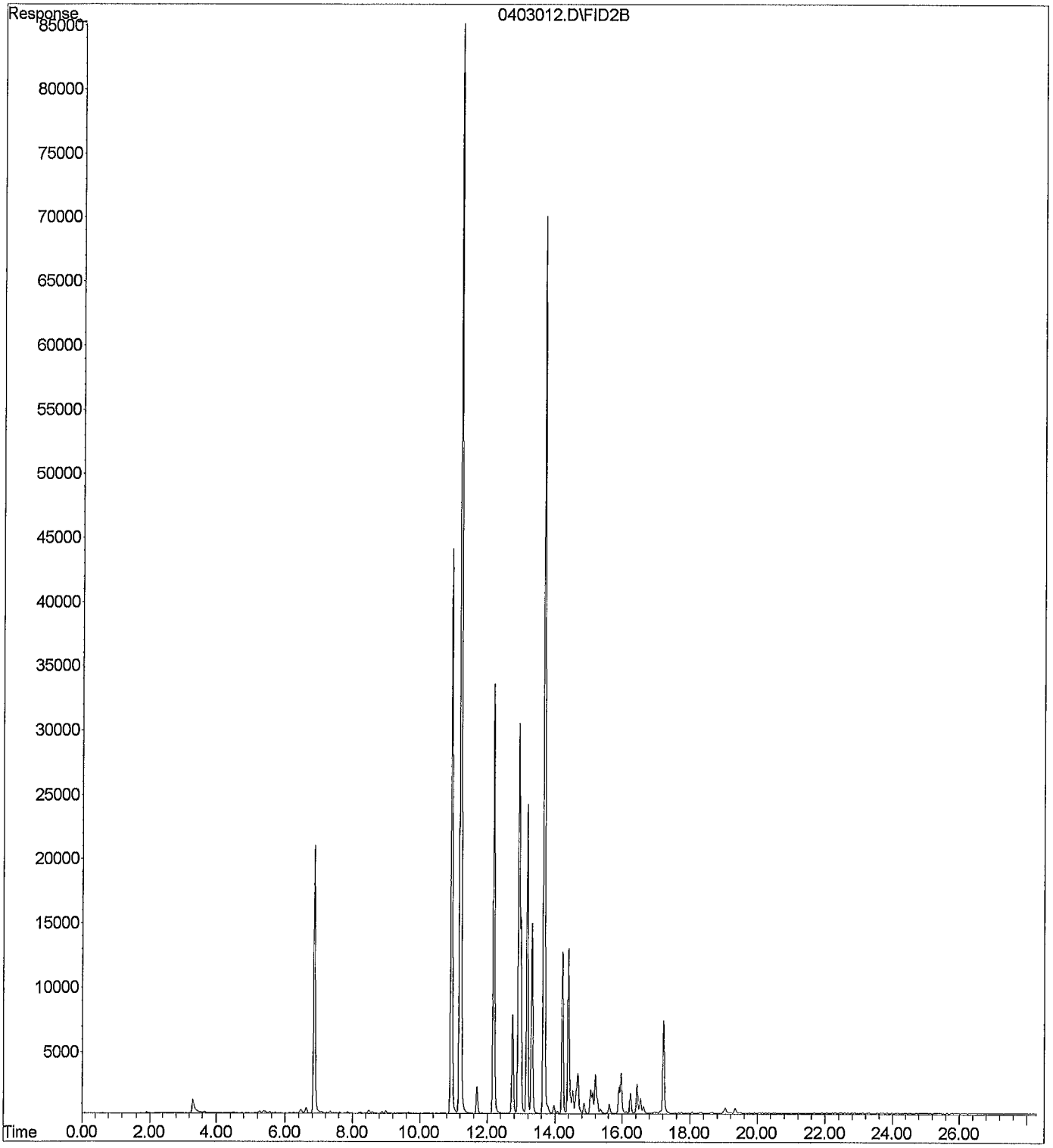
File : X:\BTEX\DARYL\DATA\D240408\0408006.D
Operator :
Acquired : 8 Apr 2024 15:56 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-16c RR
Misc Info :
Vial Number: 6



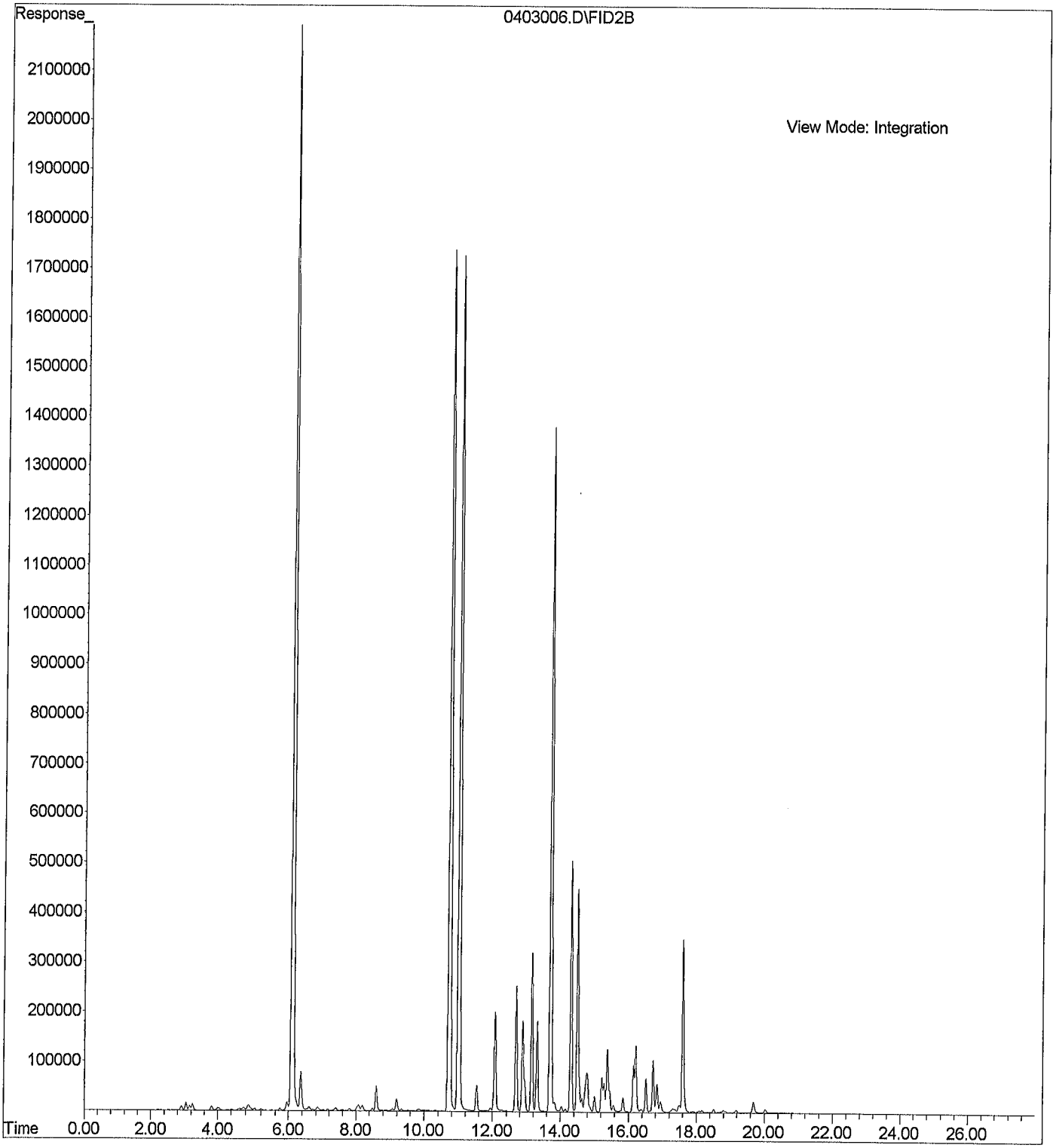
File : X:\BTEX\DARYL\DATA\D240403\0403011.D
Operator :
Acquired : 3 Apr 2024 19:48 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-18c 1:50
Misc Info :
Vial Number: 11



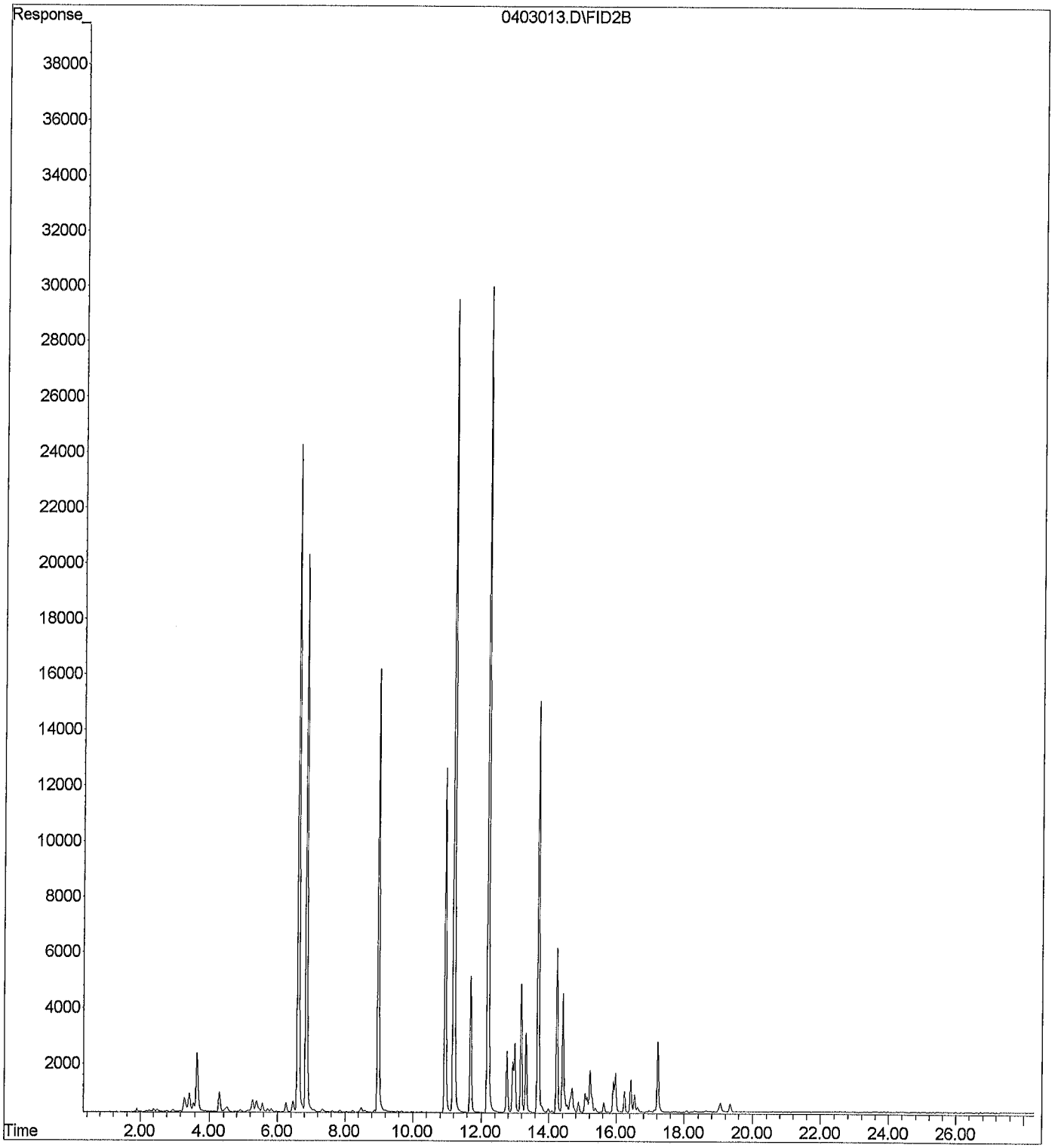
File : X:\BTEX\DARYL\DATA\D240403\0403012.D
Operator :
Acquired : 3 Apr 2024 20:18 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-19c 1:50
Misc Info :
Vial Number: 12



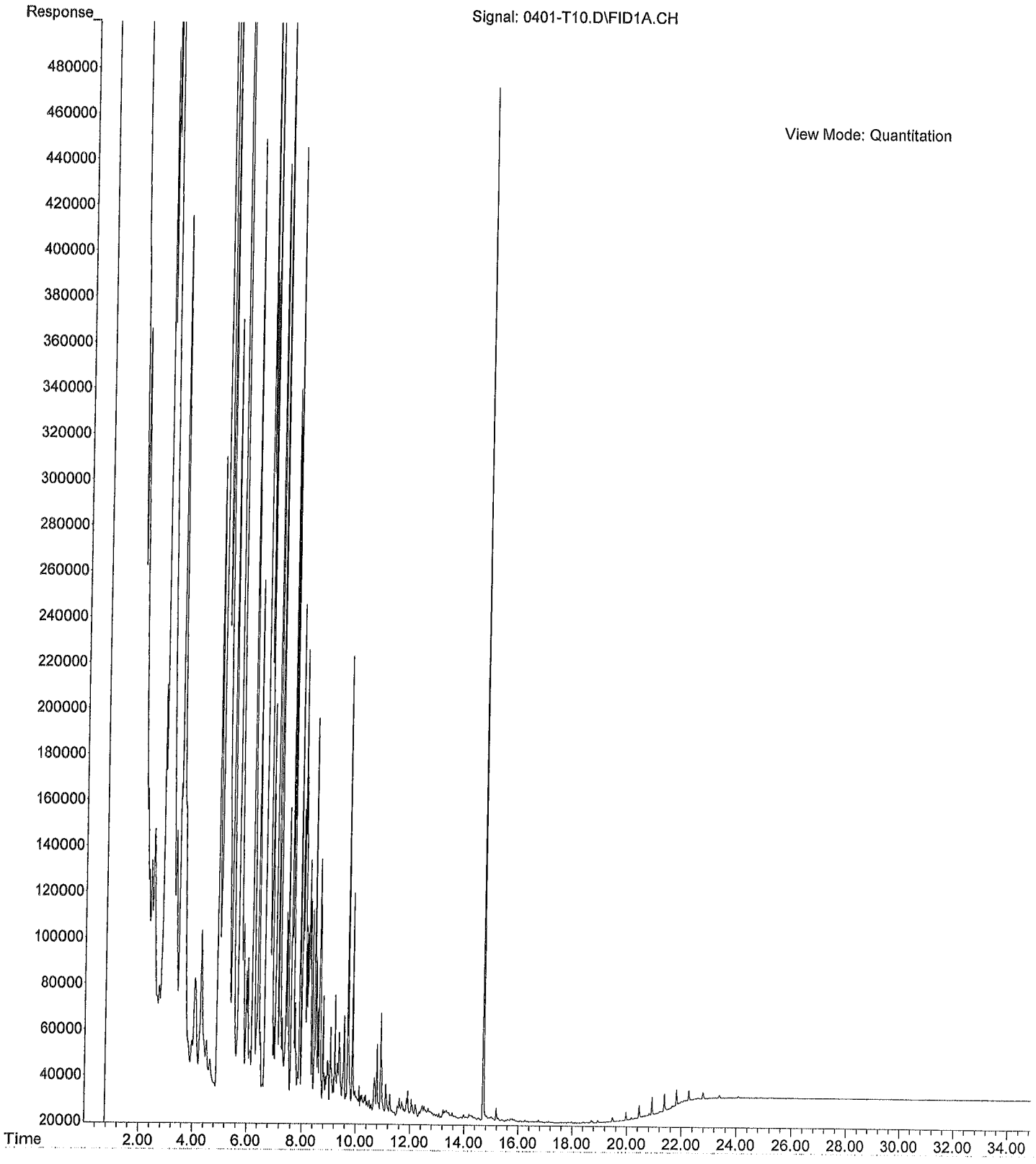
File : X:\BTEX\HOPE\DATA\H240403\0403006.D
Operator :
Acquired : 3 Apr 2024 15:16 using AcqMethod 240312B.M
Instrument : Hope
Sample Name: 03-425-20a
Misc Info :
Vial Number: 6



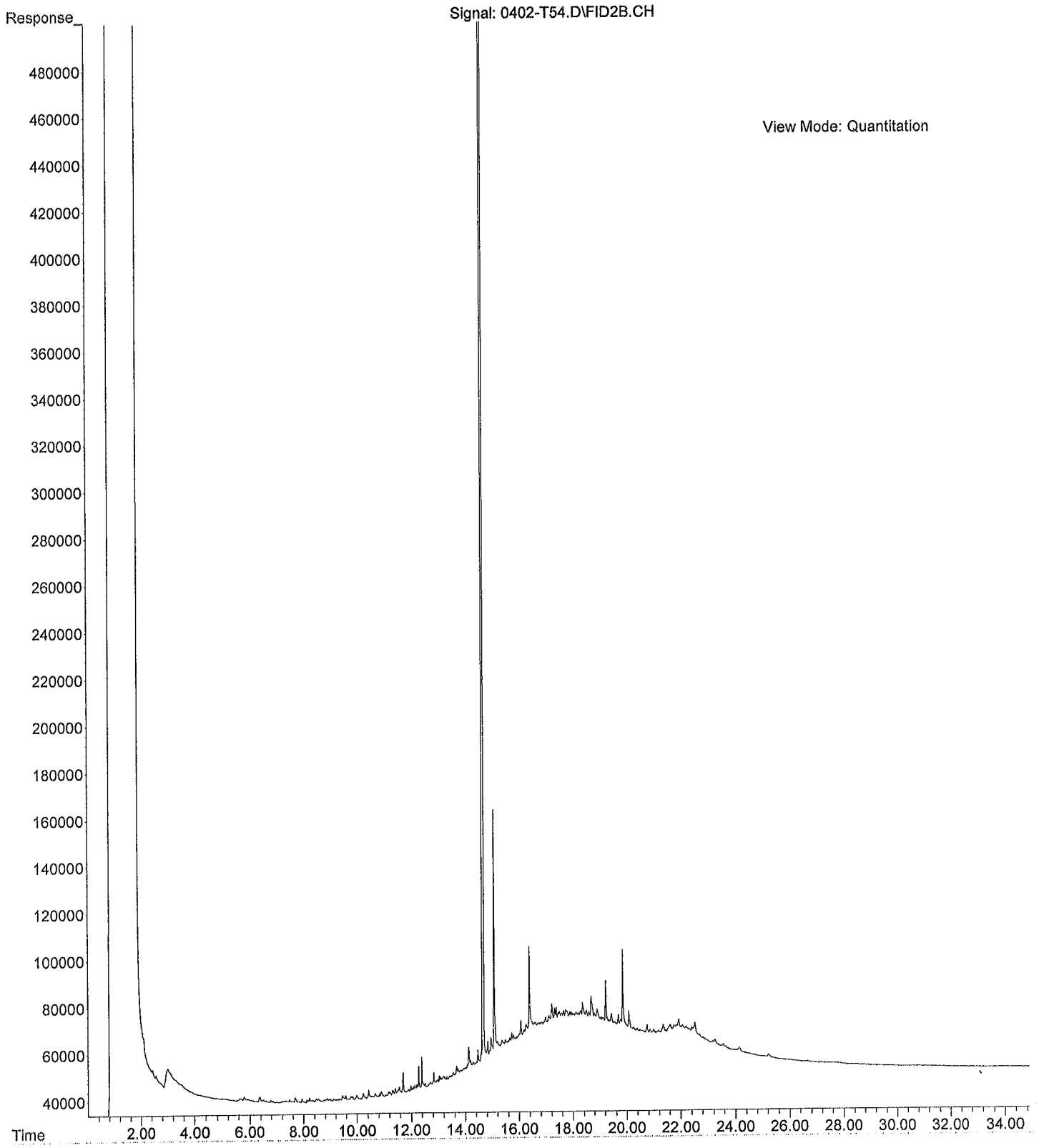
File : X:\BTEX\DARYL\DATA\D240403\0403013.D
Operator :
Acquired : 3 Apr 2024 20:48 using AcqMethod 231110B.M
Instrument : Daryl
Sample Name: 03-425-21c 1:50
Misc Info :
Vial Number: 13



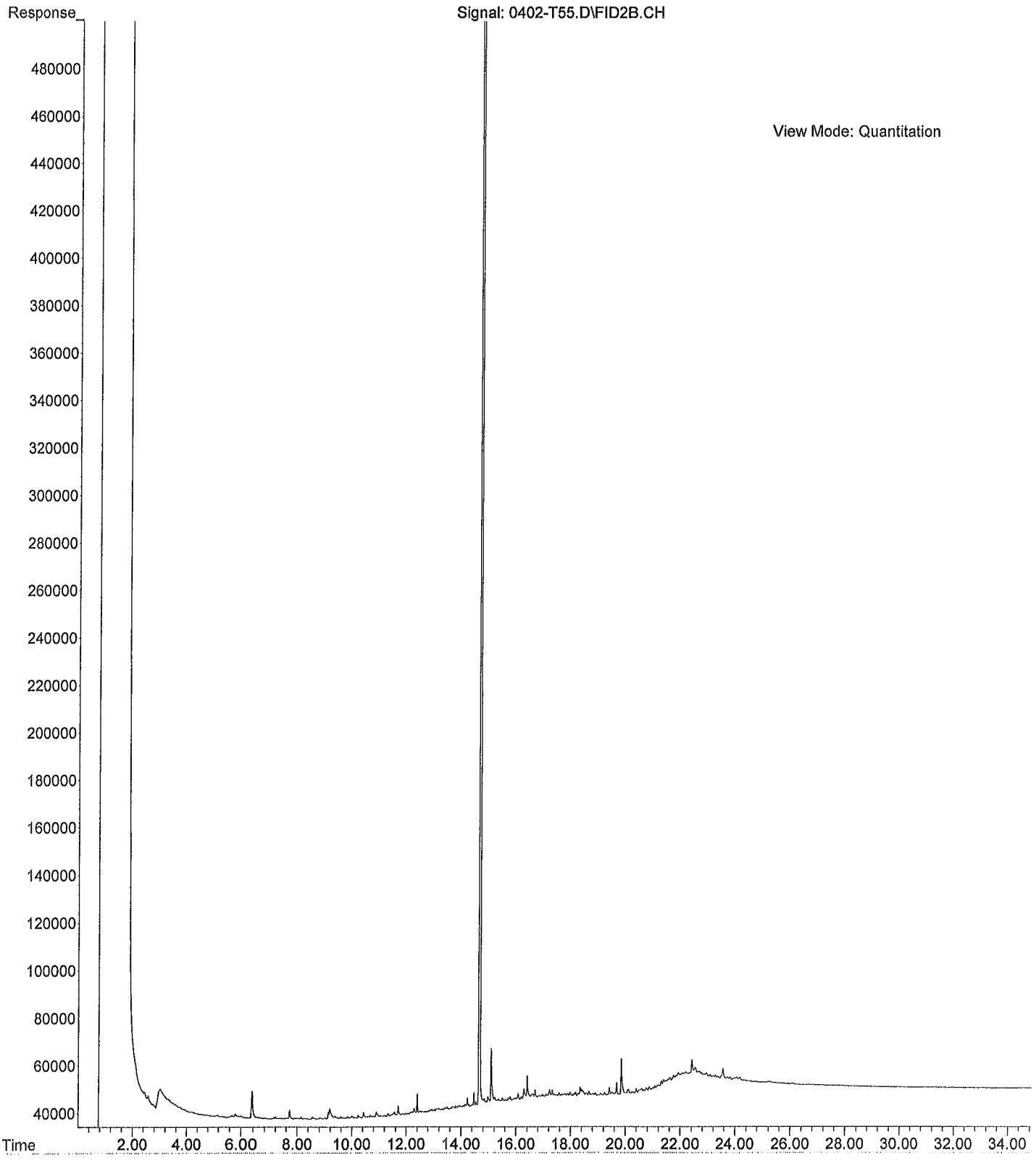
File :C:\msdchem\1\data\T240401\0401-T10.D
Operator : LIMS import
Acquired : 01 Apr 2024 16:05 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-05 20X
Misc Info : Sample
Vial Number: 10



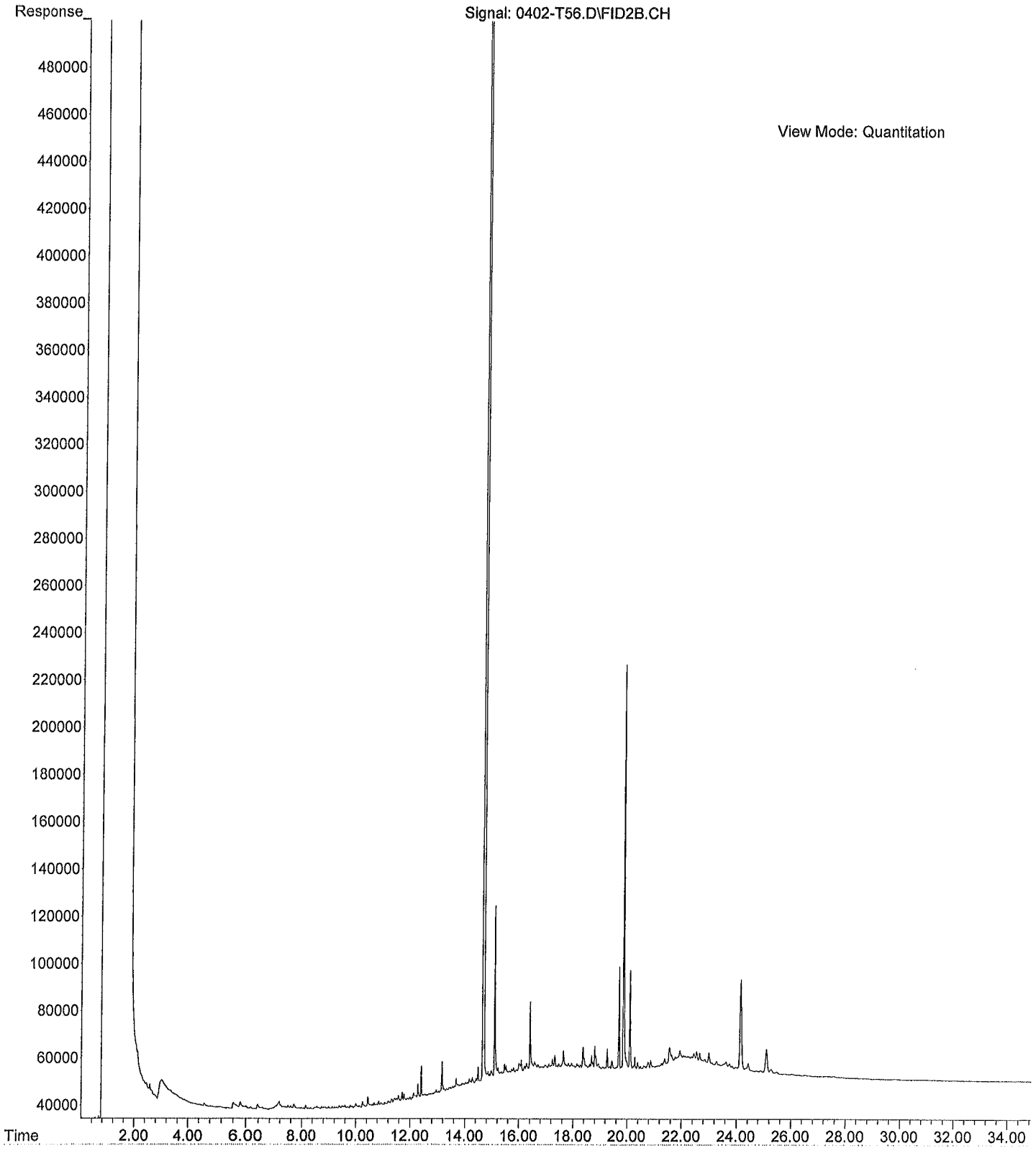
File :C:\msdchem\1\data\T240402.SEC\0402-T54.D
Operator : LIMS import
Acquired : 02 Apr 2024 13:35 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-06
Misc Info : RearSamp
Vial Number: 54



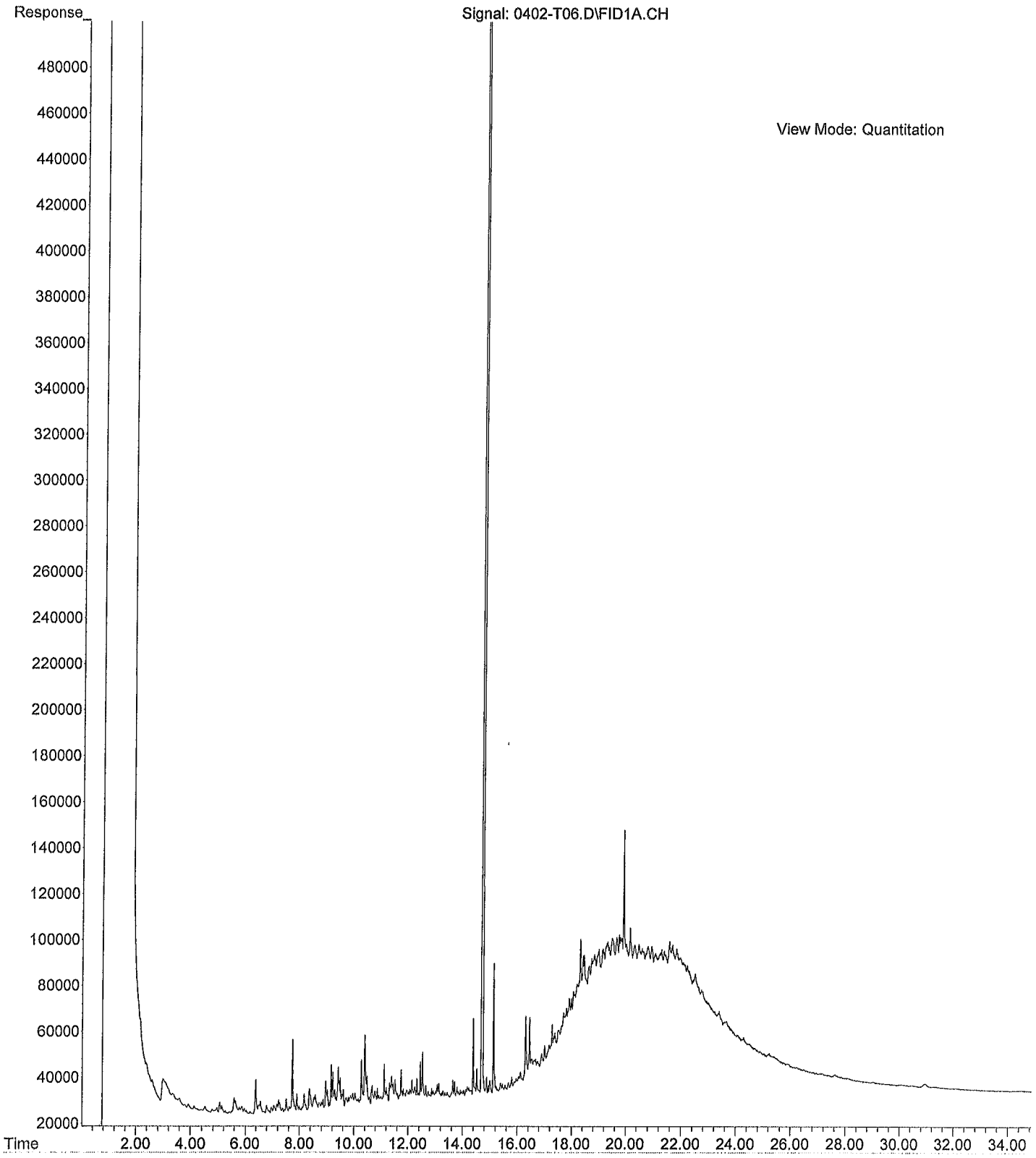
File :C:\msdchem\1\data\T240402.SEC\0402-T55.D
Operator : LIMS import
Acquired : 02 Apr 2024 14:18 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-09
Misc Info : RearSamp
Vial Number: 55



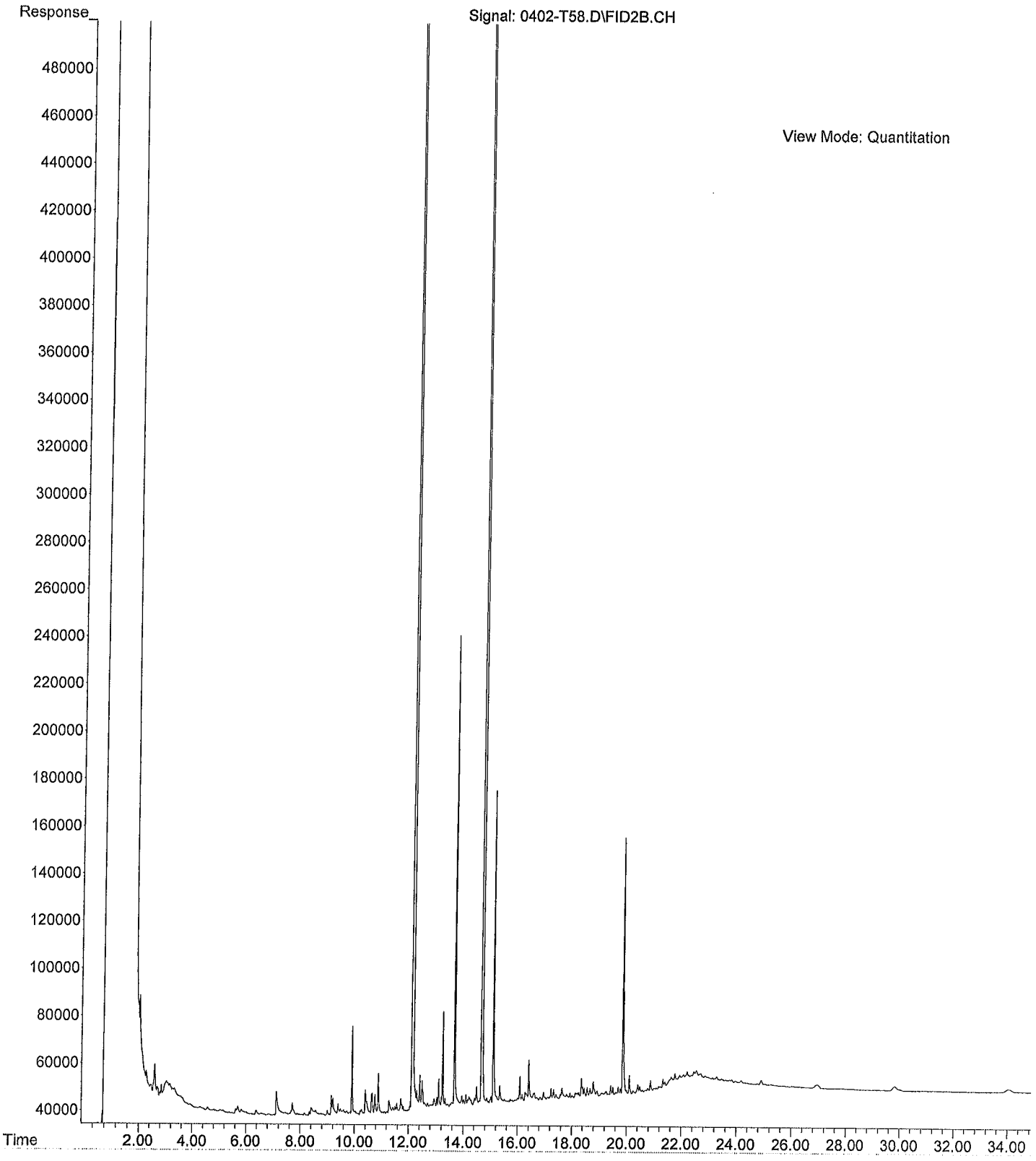
File :C:\msdchem\1\data\T240402.SEC\0402-T56.D
Operator : LIMS import
Acquired : 02 Apr 2024 15:00 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-10
Misc Info : RearSamp
Vial Number: 56



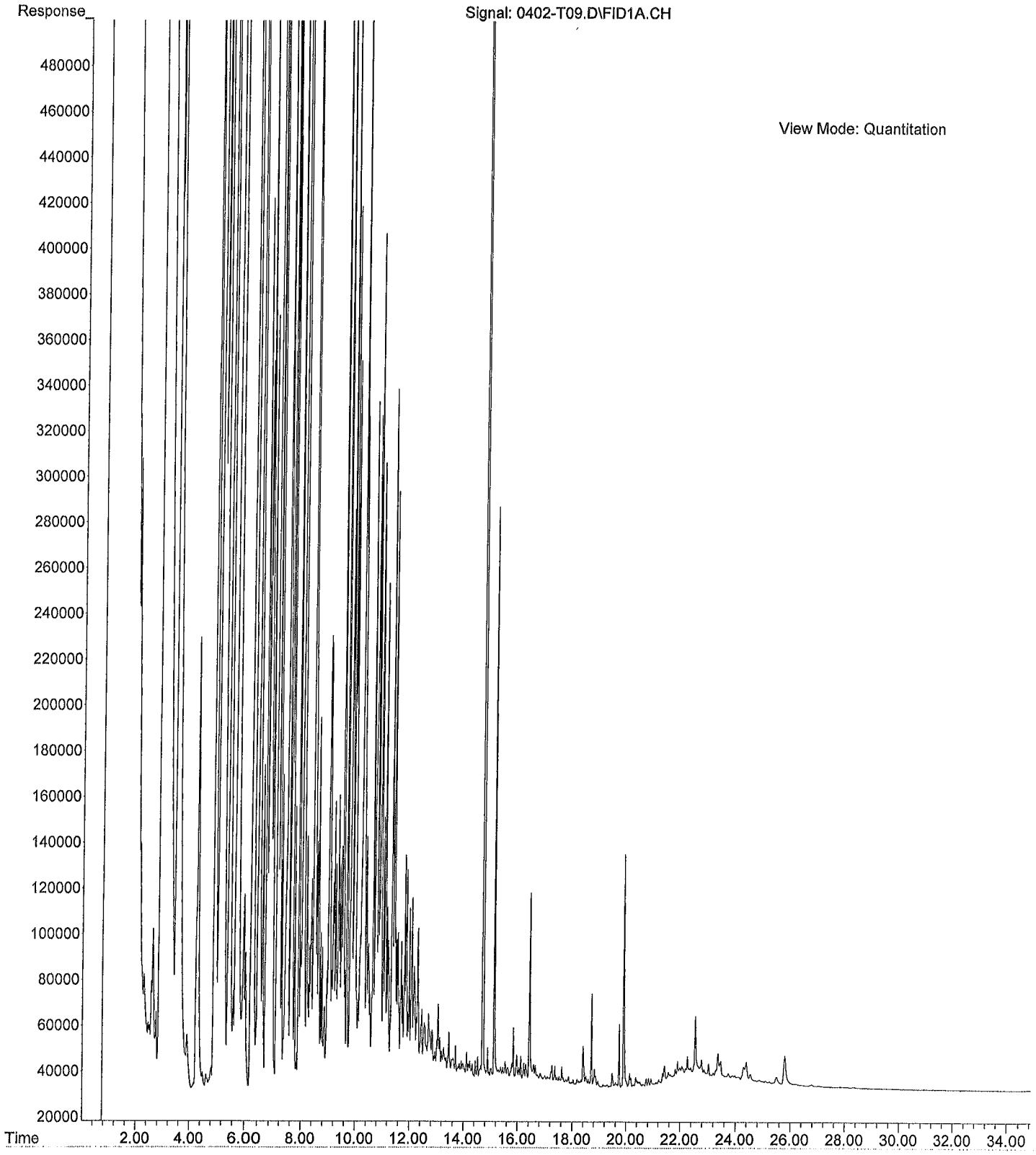
File :C:\msdchem\1\data\T240402\0402-T06.D
Operator : LIMS import
Acquired : 02 Apr 2024 15:00 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-12
Misc Info : Sample
Vial Number: 6



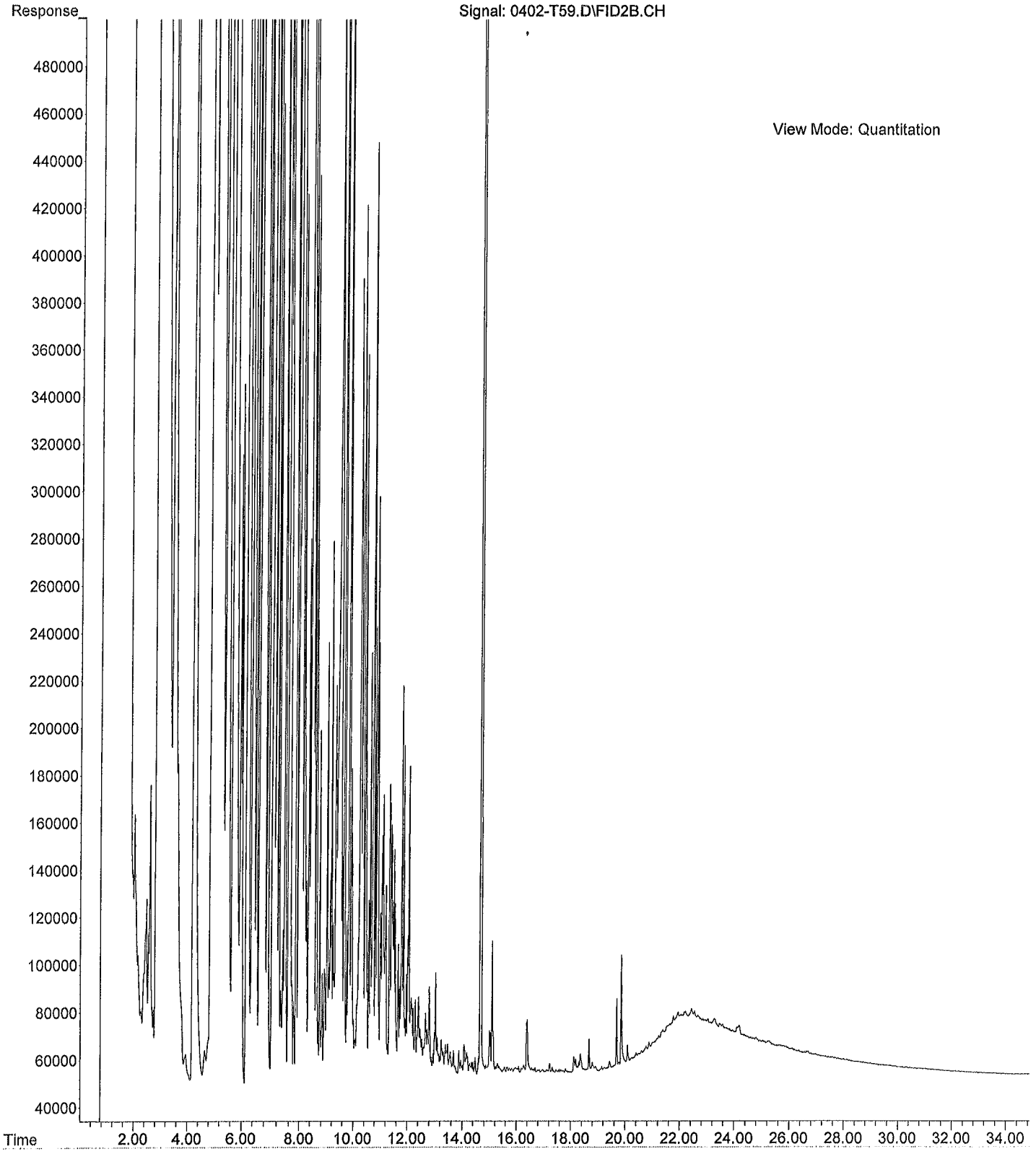
File :C:\msdchem\1\data\T240402.SEC\0402-T58.D
Operator : LIMS import
Acquired : 02 Apr 2024 16:25 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-16
Misc Info : RearSamp
Vial Number: 58



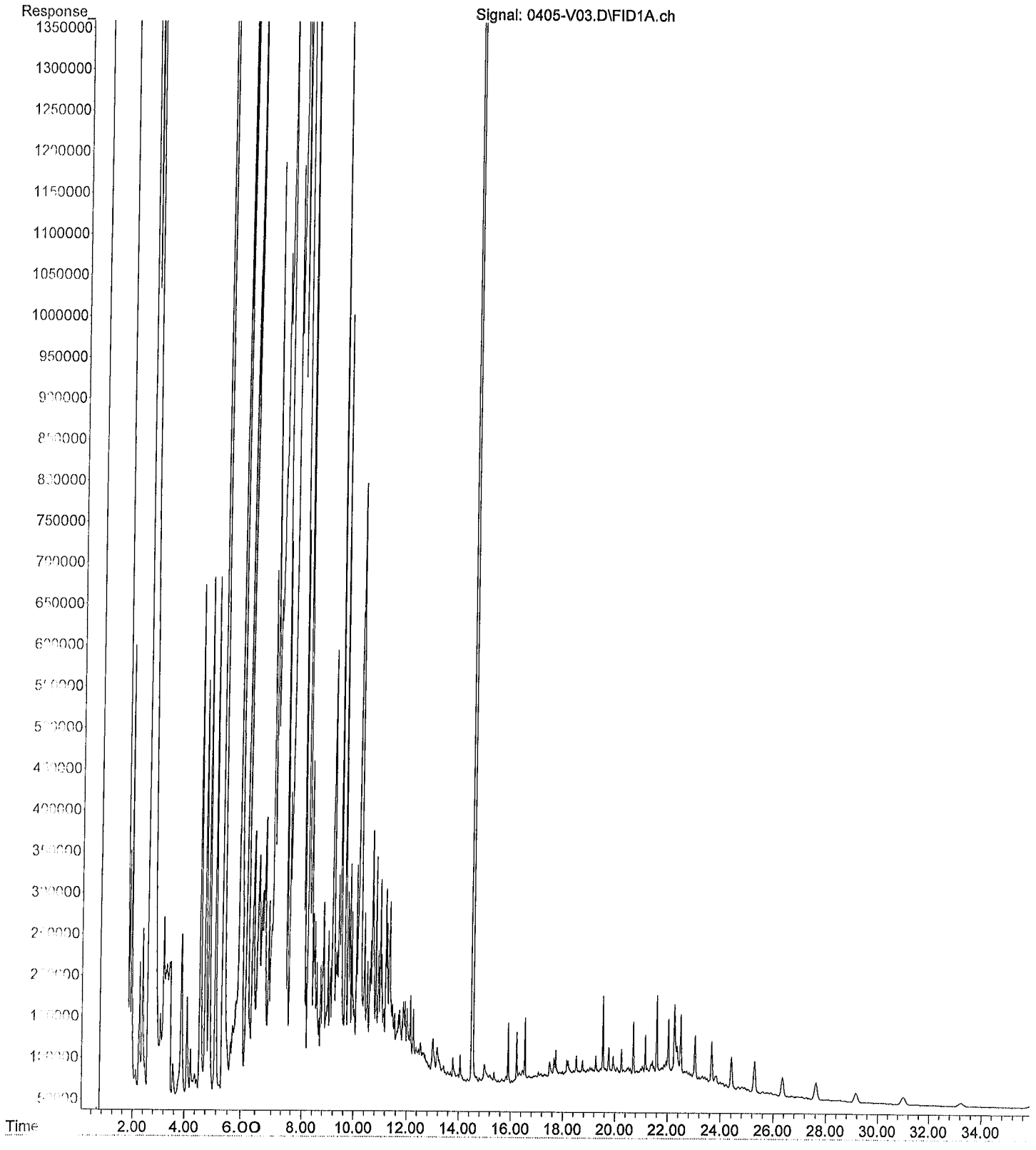
File :C:\msdchem\1\data\T240402\0402-T09.D
Operator : LIMS import
Acquired : 02 Apr 2024 17:07 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-18
Misc Info : Sample
Vial Number: 9



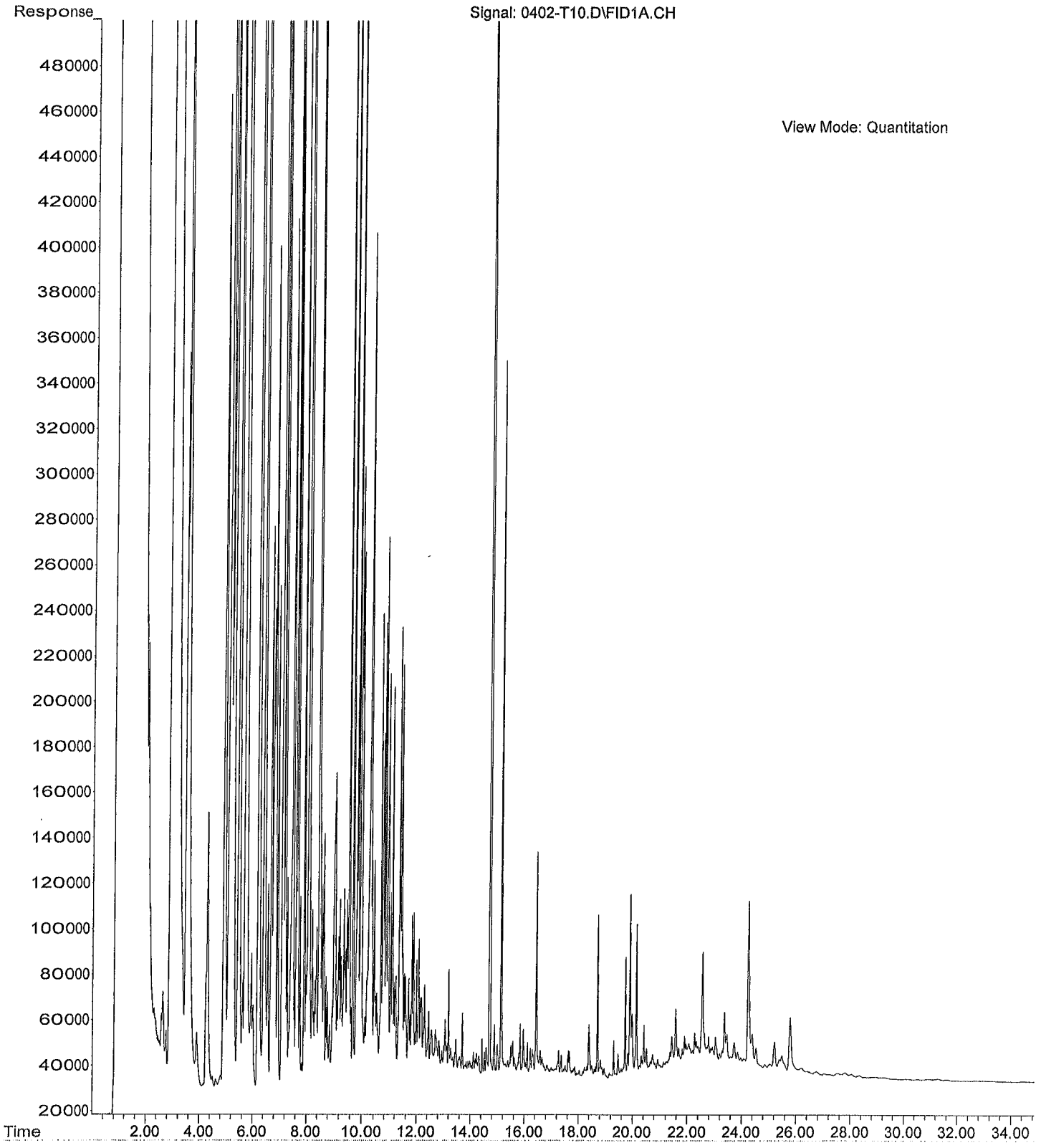
File :C:\msdchem\1\data\T240402.SEC\0402-T59.D
Operator : LIMS import
Acquired : 02 Apr 2024 17:07 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-19
Misc Info : RearSamp
Vial Number: 59



File :C:\msdchem\2\data\V240405\0405-V03.D
Operator : LIMS import
Acquired : 5 Apr 2024 9:32 using AcqMethod V230830F.M
Instrument : Vigo
Sample Name: 03-425-20
Misc Info : Sample
Vial Number: 3



File :C:\msdchem\1\data\T240402\0402-T10.D
Operator : LIMS import
Acquired : 02 Apr 2024 17:49 using AcqMethod T231127F.M
Instrument : Teri
Sample Name: 03-425-21
Misc Info : Sample
Vial Number: 10



G-Logics/Atlas Geosciences NW

Data Validation Worksheet
Boeing Field Chevron RI Addendum

Client: RPNP Corporation Project Name: Boeing Field Chevron Project #: 01-0410-S

Analytical Package ID 03-425-05

Lab ID	Report Date	Sample ID	Matrix	Analytes						
				GRO	DRO	ORO	BTEX	EDB	EDC	MTBE
03-425-01	04/09/24	MW-25	Water	x	x	x	x	*	*	*
03-425-02	04/09/24	MW-23	Water	x	x	x	x	*	*	*
03-425-03	04/09/24	MW-24D	Water	x	x	x	x	*	*	*
03-425-04	04/09/24	MW-30	Water	x	x	x	x	*	*	*
03-425-06	04/09/24	MW-24	Water	x	x	x	x	*	*	*
03-425-07	04/09/24	MW-19	Water	x	x	x	x	*	*	*
03-425-08	04/09/24	MW-18	Water	x	x	x	x	*	*	*
03-425-09	04/09/24	MW-20	Water	x	x	x	x	*	*	*
03-425-10	04/09/24	MW-21	Water	x	x	x	x	*	*	*
03-425-11	04/09/24	MW-29D	Water	x	x	x	x	*	*	*
03-425-12	04/09/24	MW-28D	Water	x	x	x	x	*	*	*
03-425-13	04/09/24	MW-28S	Water	x	x	x	x	*	*	*
03-425-14	04/09/24	MW-26S	Water	x	x	x	x	*	*	*
03-425-15	04/09/24	MW-27S	Water	x	x	x	x	*	*	*
03-425-16	04/09/24	MW-27D	Water	x	x	x	x	*	*	*
03-425-17	04/09/24	TW-2	Water	x	x	x	x	*	*	*
03-425-18	04/09/24	IP-5	Water	x	x	x	x	*	*	*
03-425-19	04/09/24	IP-4	Water	x	x	x	x	*	*	*
03-425-20	04/09/24	TW-3	Water	x	x	x	x	*	*	*
03-425-21	04/09/24	Dup-1	Water	x	x	x	x	*	*	*
03-425-05	04/09/24	IP-7-Product	Product	x	x	x	x	x	x	x

Notes:
x = Analysis performed for analyte
* = Analysis not performed for analyte