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February 5, 2016

Mr. John Mefford
Washington State Department of Ecology
1250 West Alder Street
Union Gap, WA 98903-0009

SUBJECT: SITE INVESTIGATION SUMMARY AND SUPPLEMENTAL WORK PLAN
Big B Mini Mart
1611 Canyon Road
Ellensburg, Washington

Dear Mr. Mefford:

Floyd|Snider has prepared this Site Investigation Summary and Supplemental Work Plan in accordance with the Scope of Work per the Agreed Order between the Washington State Department of Ecology (Ecology) and the Potentially Liable Parties (PLPs) for the Big B Mini Mart Site (Site) located in Ellensburg, Washington, shown on Figure 1. The Scope of Work contemplated additional phases of soil and groundwater investigation that may be necessary to refine the conceptual site model to adequately address concerns associated with the presence of light non-aqueous phase liquids (LNAPLs). A more detailed summary of previous field activities and results will be presented in a remedial investigation and feasibility study (RI/FS). Until the results of the supplemental investigation are available, we are not contemplating any interim actions as suggested in your letter of November 18th, 2015.

The purpose of this supplemental investigation is primarily to delineate the lateral extent of LNAPL beneath the property and along its downgradient boundary. Other data gaps are addressed as well, including the off-site extent of the dissolved-phase hydrocarbon plume and the soil vapor to indoor air pathway assessment after redevelopment plans are known.

COMPLETED FIELD INVESTIGATION ACTIVITIES

The following paragraphs summarize work completed to date. An updated conceptual site model will be presented in the RI/FS, which will also include results from the proposed supplemental investigation.

In May 2015, Floyd|Snider completed initial site investigation activities in order to delineate hydrocarbon impacts in soil and to investigate groundwater quality and flow direction.

Field activities were conducted according to the Site Investigation Work Plan, Sampling and Analysis and Quality Assurance Project Plan (SAP/QAPP) submitted by Floyd|Snider in December 2014 (Floyd|Snider 2014). Field activities included the following:

- Digging 22 test pits
- Installing four new monitoring wells
- Developing new monitoring wells
- Collecting groundwater samples in three quarterly events
- Analyzing selected soil samples
- Analyzing product samples from monitoring wells MW-2 and MW-5A
- Conducting a topographic survey

Prior to field activities, public and private utility locates were conducted to identify below ground utilities and fuel lines associated with the underground storage tanks (USTs) on-site. Test pits were advanced using an excavator operated by Northwest Environmental, and monitoring wells were installed by Cascade Drilling, L.P. (Cascade) of Woodinville, Washington. Test pit and monitoring well locations are shown on Figure 1.

Test Pits

Twenty-two test pits were advanced on the property to delineate the nature and extent of soil impacts. At each test pit location, field screening observations were recorded along the entire exposed soil column and samples were collected of representative contamination. Field screening consisted of headspace vapor screening, sheen testing, staining observations, and odor. In general, the test pits were advanced until the water table was reached.

Field observations were used to estimate the smear zone thickness, the extent of clean overburden, the presence of impacts in the vadose zone, and whether or not LNAPL was present as droplets on the water table within each test pit. Soil samples were collected from the test pit sidewalls at a depth just above the groundwater surface. Test pit field logs are included in Attachment 1, and test pit locations are shown on Figure 1.

Soil samples were collected per Ecology guidance and U.S. Environmental Protection Agency (USEPA) Method 5035A. Depending on field screening results and location of test pits, selected soil samples were analyzed for the following:

- Hydrocarbon identification (HCID) by NWTPH-HCID
- Gasoline-range organics (GRO) by NWTPH-Gx
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8021B
- Diesel- and heavy oil-range organics (DRO and ORO) by NWTPH-Dx

Five soil samples with high petroleum impacts, based on field observations, were analyzed for the following additional analyses:

- Total lead by USEPA Method 6020
- BTEX, ethanol, methyl tert-butyl ether (MTBE), naphthalene, n-hexane, ethylene dibromide (EDB), and ethylene dichloride (EDC) by USEPA Method 8260

Given that the Site contains impacts from former diesel and gasoline sources, the NWTPH-HCID methodology was first used to determine the presence (or absence) and type of petroleum product that existed in each test pit sample. If the results for the HCID were positive for gasoline or diesel, or both, then the appropriate follow up analytical method was used to quantify the product type detected.

Monitoring Well Location and Installation

An attempt was made with a metal detector to locate monitoring wells MW-1, MW-4, MW-5, and MW-6. Monitoring well MW-5 was located but was damaged beyond repair, and the rest of the wells were not able to be located and are presumed destroyed. Monitoring wells MW-1, MW-4, and MW-5 were replaced with wells MW-1A, MW-4A, and MW-5A, respectively, and one new well, MW-7, was installed. In addition, the protective monument for monitoring well MW-2 was replaced.

The wells were installed using a hollow-stem auger by Cascade. Borings were advanced to 15 feet below ground surface (bgs), and soil samples will be collected every 2.5 feet down to 9 feet bgs using a split-spoon sampler and logged by field personnel during this supplemental investigation. All down-hole drilling equipment were decontaminated before use and between drilling locations.

The wells were constructed of 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) pipe with a flush threaded riser, including a threaded end plug and a machine-slotted 10-foot-long, 10-slot well screen. Well screens were set from 4 to 14 feet bgs. The annular spaces around the screen zone of each well were backfilled with clean silica sand. The annular space above the sandpack was sealed with bentonite chips. Bentonite placed above the water table was hydrated with potable water. The surface of each well was completed with a flush-mounted, traffic grade, steel monument, and the well was secured with a lockable gasket cap.

As-built construction details, including the total depth of each boring and the placement depths of the filter sandpack, the bentonite seal, and the surface completion was measured to the nearest 0.1 foot. Well logs, including soil sample description and as-built construction details, are included in Attachment 1.

All existing and new wells on the property were developed by surging with a bailer or surge block followed by purging with an electric whaler pump. Surging and purging were repeated until evacuated water was visibly clean and essentially sand-free. Well development continued until 10 well volumes were purged. All down-hole well development tools were decontaminated prior to being re-used.

Low-Flow Groundwater Sampling

Three rounds of groundwater monitoring and sampling were completed at the Site during May, July, and October 2015. The July and October monitoring events were coordinated to occur simultaneously with the monitoring events for the Toad's/Astro (Toad) Station to the south. Depth to groundwater and LNAPL measurements were collected at the start of each sampling event. If LNAPL was detected in a well, that well was not sampled. All wells were purged and sampled using low-flow procedures to achieve the lowest turbidity practicable with a peristaltic pump and disposable polyethylene tubing.

All wells were purged until temperature, pH, turbidity, and specific conductivity were approximately stable (within 10 percent) for three consecutive readings, or a maximum of 30 minutes of purging had elapsed. After each well was purged, groundwater samples were collected by directly filling the laboratory-provided bottles from the pump discharge line at the same flow rate that was used for purging. Groundwater samples were analyzed for the following constituents for the first round in May 2015:

- DRO and ORO by Method NWTPH-Dx
- GRO by NWTPH-Gx
- BTEX, MTBE, EDC, naphthalene, and ethanol by USEPA Method 8260
- EDB by USEPA Method 8011
- Total lead by USEPA Method 6020

The following constituents were analyzed during subsequent sampling events:

- DRO and ORO by Method NWTPH-Dx
- GRO by NWTPH-Gx
- BTEX and naphthalene by USEPA Method 8260

Product Sampling

During the May 2015 sampling event, LNAPL samples were collected from monitoring wells MW-2 and MW-5A using a disposable bailer and analyzed for the following constituents:

- HCID by NWTPH-HCID (to establish product type)
- Total lead by USEPA Method 6020
- EDB by USEPA Method 8011
- Ethanol, BTEX, MTBE, naphthalene, n-hexane, and EDC by USEPA Method 8260

Light Non-Aqueous Phase Liquid Baildown and Recovery

LNAPL baildown tests were performed on wells MW-2 and MW-5A during the July event, which had observed LNAPL thicknesses of 0.09 and 0.42 feet, respectively. A total of approximately 0.1 gallon of LNAPL was removed from wells MW-2 and MW-5A using a 2-inch acrylic bailer. LNAPL was poured in a bucket with absorbent material and then placed in a 55-gallon Department of Transportation-approved drum pending off-site transport and disposal. Once the LNAPL was completely removed, the recharge rate was monitored throughout the day with the interface probe. Recovery results from the LNAPL baildown tests conducted on wells MW-2 and MW-5A are included as Attachment 3.

Survey

A licensed surveyor located all service station structures, property boundaries, test pits, and monitoring wells after installation. Test pit and monitoring well coordinates are reported relative to the North American Datum of 1983 (NAD 83) Washington State Plane South. Well elevations were reported relative to the North American Vertical Datum of 1988 (NAVD 88) to an accuracy of 0.01 feet.

INVESTIGATION FINDINGS

Geology

The subsurface geology beneath the property consists of brown medium to coarse, gravelly sand and sandy, coarse gravel and cobbles from the surface to approximately 10 feet bgs, which is the maximum depth that soils were sampled with the drill rig. A dark brown silt layer with some organic matter was encountered between 3 and 5 feet bgs in the southeastern half of the property.

Hydrogeology

During the three monitoring and sampling events, the depth to groundwater across the Site was typically between 3.6 and 6.8 feet below top of casing, and depths to LNAPL were recorded between 4.0 and 6.4 feet below top of casing with thicknesses up to 1.03 feet thick. Groundwater elevations fluctuated seasonally up to 1.1 feet in all wells. The July and October sampling events established groundwater flow direction over a larger area using data collected from the Toad Station. It appears, based on these data, that groundwater flow direction is generally to the southeast. Groundwater contour elevations and flow direction for all three monitoring events are presented in Figures 2, 3, and 4.

CONTAMINANTS OF CONCERN AND EXTENT

Soil

Approximately 26 soil samples were collected and analyzed during test pit and monitoring well installation activities. The primary contaminants of concern in soil at the Site are GRO and DRO, BTEX, and naphthalene. All other constituents that were analyzed for were either less than their respective Model Toxics Control Act (MTCA) Method A cleanup levels or less than laboratory detection limits. GRO was detected up to 3,700 milligrams per kilograms (mg/kg) and DRO up to 24,000 mg/kg. The distribution of benzene is generally associated with GRO impacts in soil. Heavy ORO were either non-detect or at concentrations less than cleanup levels.

Petroleum-impacted soil is encountered at depths ranging between 3.5 and 7 feet bgs. The most heavily impacted areas are within the center of the property, east-northeast of the station building between the central USTs and fuel dispensers, and at the southern portion of the property. Soil analytical data are presented in Tables 1 and 2 and on Figure 5. The lateral limits of GRO, DRO, and benzene in soil are shown on Figure 6.

Groundwater

The lateral extent of dissolved-phase hydrocarbons in groundwater includes the areas east-northeast of the station building and southeast of the southern USTs. Diesel is the primary contaminant of concern in groundwater, which has been consistently detected in monitoring well MW-4A at concentrations exceeding the MTCA Method A cleanup level. Based on the apparent groundwater flow direction, it is unlikely that the dissolved-phase hydrocarbon plume extends off-property to the west-southwest toward the Burlington Northern rail line. However, the dissolved-phase plume may extend off-property to the east and southeast. Monitoring well MW-1, on the Toad Station to the south, has had detections of GRO and DRO at concentrations that exceed their respective MTCA Method A cleanup levels and in October 2015, LNAPL was observed in this well at a thickness of 0.08 feet.

Groundwater elevations, LNAPL thickness, and analytical data are presented in Table 3. Additional analytes tested during the initial sampling event are presented in Table 4. The laboratory analytical reports are included as Attachment 2.

Light Non-Aqueous Phase Liquid

LNAPL was detected consistently in monitoring wells MW-2 and MW-5A with recorded LNAPL thicknesses ranging between 0.09 and 0.41 feet and 0.42 and 1.03 feet, respectively. LNAPL droplets were not observed on the water table in any of the test pits. Monitoring observations indicate that LNAPL thickness increases as groundwater elevations decrease seasonally. LNAPL samples were collected and analyzed from both wells, and analytical data indicate that LNAPL is mainly diesel with a minor gasoline component. LNAPL thicknesses are presented on Table 3, and analytical data are presented in Table 5.

Results from the bail down tests indicate that LNAPL thicknesses in wells MW-2 and MW-5A returned to their pre-bail down thicknesses after approximately 4 hours (Attachment 3).

Based on the soil types, residual saturation concentrations for GRO and DRO were derived using Table 15-14 (Residual Saturation Values) in Ecology's Concise Explanatory Statement (Ecology 2001). Residual saturation values for GRO and DRO are approximately 1,700 mg/kg and 8,000 mg/kg, respectively. Using these values, field observations during test pit activities, soil analytical data, and LNAPL observations during monitoring events, two areas of LNAPL are potentially present. One area is located in the vicinity of monitoring well MW-2, and the second is a larger plume found in the vicinity of MW-5A and test pit TP-5. The approximate extent of LNAPL beneath the property is shown on Figure 7.

SUPPLEMENTAL WORK PLAN

Residual hydrocarbon impacts in soil have generally been delineated beneath the property; however, data gaps remain including:

- Definition of the actual extent of the LNAPL.
- Property boundary conditions of the dissolved-phase plumes in groundwater, which are currently undefined at the downgradient property boundary.
- The full thickness of the dissolved-phase plume, which is undefined.
- The soil vapor risk to indoor air from the LNAPL.

The primary concern at the Site is the presence of LNAPL, which will be the likely focus of any proposed remedial actions or interim actions. The extent can be better delineated beneath the property as currently the extent is based on data from a limited number of monitoring wells and/or test pit soil samples (using residual saturation). In addition, impacted groundwater has not been fully delineated laterally to the east and southeast. The aquifer thickness that is impacted is also unestablished.

The vapor risk to indoor air is a lesser concern as the site is unoccupied, and it is likely that future remediation activities will occur. Therefore, soil vapor risk will be evaluated after redevelopment plans and remedial activities are known.

The remainder of this document presents proposed field activities to fill the data gaps that are key to the development of a comprehensive RI/FS.

SCOPE OF WORK

The scope of work will consist of the following:

- Installation of up to 22 LNAPL piezometers
- Installation of up to three additional groundwater monitoring wells along the property boundary
- Groundwater sampling
- Performance of two LNAPL monitoring events

Proposed LNAPL piezometer locations and additional monitoring wells are shown on Figure 8.

INSTALLATION OF PIEZOMETERS

In order to define the actual extent, thickness, and volume of the LNAPL on the property, up to 22 piezometers will be installed. Data from these piezometers will also provide information that can be used in calculating a volume estimate of potentially recoverable and mobile LNAPL versus residual LNAPL that is not expected to migrate further.

The piezometers will be constructed of 2-inch-diameter Schedule 40 PVC 0.02-inch slotted screen and casing, and each will be installed to a maximum depth of 8 feet bgs. A 5-foot-long screen will be placed between 3 and 8 feet bgs with 0.020-inch factory slots. For piezometers installed to a depth greater than 10 feet bgs, a licensed well driller is required under the Water Well Construction Act (Revised Code of Washington Chapter 18.104). However, these piezometers will not be installed greater than 8 feet and will not be used to collect samples; therefore, a backhoe will be used to install the piezometers under Floyd|Snider field staff supervision. A pit will be excavated down to 8 feet, and the piezometers will be placed within each pit and protected within a metal casing during backfilling. The lithology beneath the Site is suitable to be used as backfill because it generally consists of high permeable sand and gravel. Once the piezometer pit is backfilled, the metal casing will be removed, exposing the screen to the LNAPL within the smear zone. The PVC casing will be left as a "stickup" above ground in a temporary fashion. Once several months of monitoring data have been collected from the piezometers, the instruments will be pulled and the hole abandoned in accordance with application regulations.

MONITORING WELL INSTALLATION

In order to investigate the extent of the dissolved-phase plume to the east and southeast, up to three new wells (MW-8, MW-9, and MW-10) will be installed to the east of well MW-2 and in the southeast corner of the Site (Figure 8). Wells will be installed by a licensed driller using a direct-push drill rig in accordance with applicable regulations. Soil samples will be collected continuously to a total depth of 15 feet and logged by field personnel under the direction of a licensed geologist. All down-hole drilling equipment will be decontaminated before use and between drilling locations.

The wells will be constructed of pre-packed, 2-inch-diameter Schedule 40 PVC pipe with a flush threaded riser, including a threaded end plug and a machine-slotted 10-foot-long, 10-slot well screen. The wells will be screened from 4 to 14 feet bgs. The annular space and pre-pack around the screen zone will consist of clean silica sand. The annular space above the silica sand will be sealed with bentonite chips. Bentonite placed above the water table will be hydrated with potable water. All materials will be placed concurrently with casing withdrawal. The surface of each well will be completed with a flush-mounted, traffic grade, steel monument, and the well will be secured by a lockable gasket cap.

As-built construction details, including the total depth of each boring and the placement depths of the filter sandpack, the bentonite seal, and the surface completion will be measured to the nearest 0.1 foot. Well logs, including soil sample description and as-built construction details, will be prepared after well completion.

The newly installed wells will be developed by surging with a bailer or surge block followed by purging with an electric pump. Surging and purging will be repeated until evacuated water is visibly clean and essentially sand-free. Well development will proceed until field parameters stabilize to within ±10 percent on three consecutive measurements or until 10 well volumes have been purged. All down-hole well development tools will be decontaminated prior to use for each well.

LIGHT NON-AQUEOUS PHASE LIQUID MONITORING

Following the installation of the piezometers and new monitoring wells, depth to water and LNAPL thicknesses will be recorded 24 hours after installation. A second monitoring event will occur approximately 1 month afterward to allow the piezometer to reach equilibrium with the surrounding aquifer and to record LNAPL thicknesses. LNAPL observations and thicknesses will be used to determine the extent, shape, and volume of LNAPL.

If the apparent LNAPL thickness is found to be greater than 0.5 feet in any new well or piezometer, additional baildown tests will be completed in order to better determine LNAPL transmissivity.

LOW-FLOW GROUNDWATER SAMPLING

Groundwater samples will be collected from up to six monitoring wells (MW-2, MW-4A, MW-5A, MW-8, MW-9, and MW-10) using the protocols in the December 2014 Work Plan. The purpose is to delineate the lateral extent of the dissolved-phase plume, especially at the downgradient property boundary. Groundwater analytical data indicate that upgradient wells MW-1A, MW-3, and MW-7 do not contain hydrocarbon concentrations that exceed their respective cleanup levels; therefore, these wells will not be sampled (Table 3). Depth to groundwater and LNAPL measurements will be collected from all monitoring wells prior to sampling. In addition, two groundwater samples will be collected from monitoring wells MW-2, MW-4A, and MW-5A in order to assess the vertical extent (thickness) of the dissolved-phase groundwater plume. The remaining wells will be sampled using standard low-flow groundwater sampling procedures.

Low-Flow Groundwater Sampling Vertical Extent

Monitoring wells MW-2, MW-4A, and MW-5A will each be sampled at two different depths (7 and 14 feet bgs) to assess the vertical extent of the dissolved-phase plume. Standard methods for collecting groundwater samples in wells that contain LNAPL typically involve passing the disposable polyethylene sample tubing through the LNAPL, which coats the tubing with product and entrains product in the samples. This results in concentrations that are biased high. Therefore, the following procedures will be utilized to obtain groundwater samples in monitoring wells containing LNAPL and in monitoring well MW-4A, which is at the fringe of the known dissolved-phase diesel plume.

A silicon stopper will be placed on the end of a ¾-inch-diameter, Schedule 40 PVC pipe. The pipe will be lowered into the well until the end extends approximately 1 foot below the bottom LNAPL/groundwater interface. Then a rod will be used to push the silicon stopper from the end of the PVC pipe, which will create a clear, LNAPL-free conduit for the polyethylene sample tubing to pass through and conduct sampling at the selected depths of 7 and 14 feet bgs. A line will be attached to the stopper to allow retrieval of the stopper from the well after sampling is finished. This technique will provide more representative groundwater quality data below the LNAPL and known dissolved-phase plume.

Once the sample tubing is placed at the preferred sampling depth, low-flow groundwater sampling will be followed per the 2014 Work Plan. New disposable polyethylene tubing will be used for each sampling depth, and all reusable equipment will be decontaminated prior to reuse.

Groundwater Analyses

After the well has been purged, the groundwater sample will be collected by directly filling the laboratory-provided bottles from the pump discharge line at the same flow rate that was used for purging. Groundwater samples will be analyzed for the following constituents:

- DRO and ORO by Method NWTPH-Dx
- GRO by NWTPH-Gx
- BTEX and naphthalene by USEPA Method 8260

SURVEY

A survey of the top of well casing to the nearest 0.01 foot in the horizontal and vertical directions of all piezometers and monitoring wells after installation will be conducted. Piezometer and monitoring well coordinates will be reported relative to the in NAD 83 Washington State Plane South. Elevations will be reported relative to the NAVD 88. Well logs will include the Washington State Plane South coordinates of the well and the top of well casing elevation. The coordinate and elevation reference systems will be noted on the well logs.

PREPARATION OF A REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT

A RI/FS report will be prepared using the data collected from the initial and supplemental site investigations. The FS portion of the report will include a site conceptual model that addresses all potential exposure pathways. Cleanup alternatives will be developed and evaluated to address the potential exposure pathways. The FS will contain sufficient information in evaluating remedial action alternatives that will coincide with station redevelopment activities. The FS will include cleanup standards that will be developed for all impacted media at the Site based on exposure pathways. Cleanup standards will consider the following, but will not be limited to:

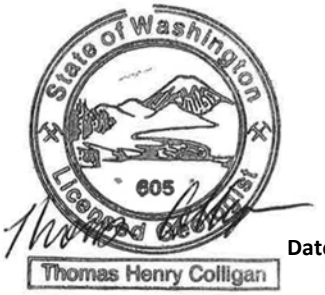
- Development of soil cleanup levels for petroleum mixtures
- Evaluation of soil to vapor pathway
- Evaluation of terrestrial ecological risks
- Development of groundwater cleanup levels based on protection of drinking water

The RI/FS report will be developed in consultation with Ecology to select the potential cleanup action remedy among a range of alternatives, which will be permanent to the extent practicable.

SCHEDULE

Work can start within 6 weeks following Ecology approval of this work plan. The length of time to complete the installation of piezometers and monitoring wells is approximately 3 days, with an additional day of LNAPL monitoring at a later date.

Sincerely yours,
FLOYD | SNIDER



Date: 2/5/2016

Gabe Cisneros
Geologist

Tom Colligan, LHG
Sr. Hydrogeologist & Associate Principal

REFERENCES

Floyd|Snider. 2014. *Site Investigation Work Plan, Big B Mini Mart, 1611 Canyon Road, Ellensburg, WA*. Letter report from Tom Colligan, Floyd|Snider, to Surjit Singh. 15 December.

Washington State Department of Ecology (Ecology). 2001. *Concise Explanatory Statement for the Amendments to the Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC.* Prepared by Toxics Cleanup Program. Publication No. 01-09-043. 12 February.

Encl.:
Table 1 – Soil Analytical Data
Table 2 – Additional Soil Analytical Data
Table 3 – Groundwater Analytical and Elevation Data
Table 4 – Additional Groundwater Analytical Data
Table 5 – LNAPL Analytical Data
Figure 1 –Site Map
Figure 2 – Groundwater Elevation and Contour Map May 7, 2015
Figure 3 – Groundwater Elevation and Contour Map July 16, 2015
Figure 4 – Groundwater Elevation and Contour Map October 20, 2015
Figure 5 – Soil Analytical Results
Figure 6 – Approximate Extent of Gasoline-Range and Diesel-Range Organics and Benzene in Soil
Figure 7 – Approximate LNAPL Extent
Figure 8 – Proposed Piezometer and Well Locations
Attachment 1 –Boring and Test Pit Logs
Attachment 2 – Laboratory Analytical Reports
Attachment 3 – Baildown Test Charts and Results

Cc:
Josh Lipsky, Cascadia Law Group PLLC
Andy King, Cascadia Law Group PLLC
Surgit Singh, Big B LLC

Tables

Table 1
Soil Analytical Data

AnalysisMethod	USEPA 8021B/8260C[1]				NWTPH-Gx	NWTPH-Dx	
Analyte	Benzene	Toluene	Ethylbenzene	Xylene (total)	Gasoline-Range Organics	Diesel-Range Organics	Oil-Range Organics
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MTCA Method A Cleanup Level	**0.03**	**7**	**6**	**9**	**30/100[2]**	**2,000**	**2,000**
Sample ID							
MW4A-6-6.5	**0.13**	0.05 U	3.8	9	**890**	**15,000**	250 U
MW5A-6-6.5	**0.067**	0.05 U	3.9	**13**	**2,600**	**21,000**	330 JM
MW7-5-5.5	0.02 U	0.1 U	1.4	4.4	**740**	**7,200**	250 U
TP1-4-4.5	**0.048**	0.05 U	1.4	0.1 U	**670**	250 JM	250 U
TP1-6.5-7	**0.7 J**	**8.8 J**	**12 J**	**13 J**	**1,200**	**8,200**	250 U
TP2-5-5.5	**0.31 J**	0.89 J	**10 J**	**47 J**	**3,700**	**11,000**	250 U
TP3-5-5.5	--	--	--	--	20 U[3]	**6,500**	250 U
TP4-6-6.5	***0.2 U***	4.1	**15**	**20**	**2,500**	**13,000**	250 U
TP5-6-6.5	***0.2 U***	1.3	**6.8**	**19**	**1,900**	**24,000**	410 JM
TP6-5-5.5	0.02 U	1.1	3.8	**9.4**	**1,100**	**4,400**	250 U
TP7-5-5.5	***0.2 U***	0.2 U	0.97	6.9	**890**	**12,000**	250 U
TP8-6-6.5	0.02	0.1 U	2.5	**14**	**1,100**	**6,500**	250 U
TP9-5-5.5	***0.2 U***	**11 J**	**12 J**	**33 J**	**2,900**	**14,000**	280 JM
TP10-6-6.5	**0.16 J**	0.05 U	1.8	0.1 U	**200**	50 U	250 U
TP10-6-6.5B	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP11-5-5.5	--	--	--	--	20 U[3]	93	250 U
TP12-6-6.5	**1.1**	3.9	4	6.7	**780**	1,000	250 U
TP13-5.5-6	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP14-5-5.5	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP15-5-5.5	**0.28**	1.6	2.3	5.7	**460**	**660**	250 U
TP16-5-5.5	0.02 U	4	4.9	**14**	**1,400**	**4,100**	250 U
TP17-5.5-6	--	--	--	--	20 U[3]	1,300	250 U
TP18-5-5.5	0.03 U	0.05 U	0.097	0.1 U	**960**	**3,900**	250 U
TP19-6-6.5	--	--	--	--	20 U[3]	440	250 U
TP20-4-4.5	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP21-4.5-5	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP22-5.5-6	--	--	--	--	20 U[3]	50 U[3]	250 U[3]
TP22-5.5-6B	--	--	--	--	20 U[3]	50 U[3]	250 U[3]

Notes:
-- Not analyzed.
BOLD Detected at a concentration that exceeds the MTCA Method A cleanup level.
Italic Non-detect with a reporting limit that exceeds criteria.
1 Volatile organic compounds were only analyzed if there were gasoline detections with the NWTPH-HCID screening results.
2 Criterion is for Benzene Present/No Detectable Benzene.
3 NWTPH-HCID screening result.

Abbreviations:
mg/kg Milligrams per kilogram
MTCA Model Toxics Control Act

Qualifiers:
J Analyte was detected, concentraiton is considred an estimate.
JM Concentration is considered an estimate, the sample chromatographic pattern does not resemble the fuel standard used for quantitation.
U Analyte was not detected at the given reporting limit.

Table 2
Additional Soil Analytical Data

			Location	MW-4A	MW-5A	TP-1	TP-10	TP-18
			Sample ID	MW4A-6-6.5	MW5A-6-6.5	TP1-4-4.5	TP10-6-6.5	TP18-5-5.5
			Sample Date	05/05/2015	05/05/2015	05/06/2015	05/06/2015	05/05/2015
Analyte	**MTCA Method A Cleanup Level**	**Units**						
Metals by USEPA 6020A								
Lead	250	mg/kg		2.08	4.28	12	3.31	5.23
Volatile Organic Compounds by USEPA 8260C								
1,2-Dibromoethane	0.005	mg/kg		0.005 UJ	0.005 UJ	0.005 U	0.005 U	0.005 UJ
1,2-Dichloroethane	11	mg/kg		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Ethanol	--	mg/kg		50 U	50 U	50 U	50 U	50 U
Methyl Tert-Butyl Ether	0.1	mg/kg		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Naphthalene	5	mg/kg		2.7	3.8	**6.9**	2.9	0.05 U
n-Hexane	--	mg/kg		0.25 U	0.25 U	0.45	0.66 J	0.69

Notes:

-- No criteria available.

BOLD Detected at a concentration that exceeds the MTCA Method A cleanup level.

Abbreviations:

mg/kg Milligrams per kilogram

MTCA Model Toxics Control Act

Qualifiers:

J Analyte was detected, concentration is considered an estimate.

U Analyte was not detected at the given reporting limit.

UJ Analyte was not detected, the given reporting limit is considered an estimate.

Table 3
Groundwater Analytical and Elevation Data

							Analysis Method	NWTPH-Gx	NWTPH-Dx		USEPA 8206C				
Sample (Well ID)	TOC Elevation (feet MSL)	Date	DTW (feet bgs)	DTL (feet bgs)	LNAPL Thickness (feet)	GW Elevation[1] (feet MSL)		Gasoline-Range Organics µg/L	Diesel-Range Organics µg/L	Motor Oil-Range Organics µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Total Xylenes µg/L	Naphthalene µg/L
MW-1A	1490.76	5/7/2015	4.65	--	--	1486.11		100 U	88 x	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.76	5/7/2015 (DUP)	4.65	--	--	1486.11		100 U	90 x	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.76	7/16/2015	4.85	--	--	1485.91		100 U	50 U	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.76	7/16/2015 (DUP)	4.85	--	--	1485.91		100 U	50 U	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.76	10/20/2015	5.75	--	--	1485.01		100 U	100 x	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.76	10/20/2015 (DUP)	5.75	--	--	1485.01		100 U	110 x	280 U	0.35 U	1 U	1 U	2 U	1 U
MW-2	1491.35	5/7/2015	5.46	5.37	0.09	1485.96		Not Sampled Due to the Presence of LNAPL.							
	1491.35	7/16/2015	5.61	5.52	0.09	1485.81		Not Sampled Due to the Presence of LNAPL.							
	1491.35	10/20/2015	6.8	6.39	0.41	1484.88		Not Sampled Due to the Presence of LNAPL.							
MW-3	1490.31	5/7/2015	4.31	--	--	1486.00		100 U	250 x	250	0.35 U	1 U	1 U	2 U	1 U
	1490.31	7/16/2015	4.51	--	--	1485.80		100 U	180	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.31	10/20/2015	5.34	--	--	1484.97		100	200 x	250 U	0.35 U	1 U	1 U	2 U	1 U
MW-4A	1489.46	5/7/2015	3.60	--	--	1485.86		740	**2,400**	250 U	1.1	1 U	6.8	18	4.2
	1489.46	7/16/2015	3.77	--	--	1485.69		140	**1,600**	250 U	0.35 U	1 U	1 U	2 U	1 U
	1489.46	10/20/2015	4.62	--	--	1484.84		120	**1,200**	250 U	0.35 U	1 U	1 U	2 U	1 U
MW-5A	1489.95	5/7/2015	4.50	4.05	0.45	1485.81		Not Sampled Due to the Presence of LNAPL							
	1489.95	7/16/2015	4.62	4.20	0.42	1485.67		Not Sampled Due to the Presence of LNAPL							
	1489.95	10/20/2015	6.04	5.01	1.03	1484.73		Not Sampled Due to the Presence of LNAPL							
MW-7	1490.72	5/7/2015	4.79	--	--	1485.93		100 U	240	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.72	7/16/2015	4.96	--	--	1485.76		100 U	100	250 U	0.35 U	1 U	1 U	2 U	1 U
	1490.72	10/20/2015	5.84	--	--	1484.88		100 U	50 U	250 U	0.35 U	1 U	1 U	2 U	1 U
							MTCA Method A Cleanup Level	**800/1,000[2]**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**

Notes:

BOLD Detected at a concentration that exceeds the MTCA Method A cleanup level.

1 Groundwater elevation corrected for the presence of LNAPL.

2 Criterion is for Benzene Present/No Detectable Benzene.

Abbreviations:

bgs Below ground surface

DTL Depth to light non-aqueous phase liquid

DTW Depth to water

GW Groundwater

LNAPL Light non-aqueous phase liquid

µg/L Micrograms per liter

MSL Mean sea level

MTCA Model Toxics Control Act

TOC Top of casing

Qualifiers:

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

U Analyte was not detected at the given reporting limit.

Table 4
Additional Groundwater Analytical Data

Location			MW-1A		MW-3	MW-4A	MW-7
Sample ID			MW1A-4-14	MW1A-4-14B	MW3-4-14	MW4A-4-14	MW7-4-14
Sample Date			05/07/2015	05/07/2015	05/07/2015	05/07/2015	05/07/2015
Analyte	**MTCA Method A Cleanup Level**	**Units**					
Metals by USEPA 6020A							
Lead	15	µg/L	1 U	1 U	1 U	1 U	1 U
Volatile Organic Compounds by USEPA 8260C							
Benzene	5	µg/L	0.35 U	0.35 U	0.35 U	1.1	0.35 U
Ethylbenzene	700	µg/L	1 U	1 U	1 U	6.8	1 U
Toluene	1,000	µg/L	1 U	1 U	1 U	1 U	1 U
Total Xylenes	1,000	µg/L	2 U	2 U	2 U	11	2 U
1,2-Dibromoethane[1]	0.01	µg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,2-Dichloroethane	5	µg/L	1 U	1 U	1 U	1 U	1 U
Ethanol	--	µg/L	1,000 U	1,000 U	1,000 U	1,000 U	1,000 U
Methyl Tert-Butyl Ether	20	µg/L	1 U	1 U	1 U	1 U	1 U
Naphthalene	160	µg/L	1 U	1 U	1 U	4.2	1 U
n-Hexane	--	µg/L	1 U	1 U	1 U	1 U	1 U
Total Petroleum Hydrocarbons by NWTPH-Gx							
Gasoline-Range Organics	800/1,000[2]	µg/L	100 U	100 U	100 U	740	100 U
Total Petroleum Hydrocarbons by NWTPH-Dx							
Diesel-Range Organics	500	µg/L	88 JM	90 JM	250 JM	**2,400**	240
Oil-Range Organics	500	µg/L	250 U	250 U	250 U	250 U	250 U

Notes:

-- No criteria available.

BOLD Detected at a concentration that exceeds the MTCA Method A cleanup level.

1 Analyzed by USEPA 8011M.

2 Criterion is for Benzene Present/No Detectable Benzene.

Abbreviations:

µg/L Micrograms per liter

MTCA Model Toxics Control Act

Qualifiers:

JM Concentration is considered an estimate, the sample chromatographic pattern does not resemble the fuel standard used for quantitation.

U Analyte was not detected at the given reporting limit.

Table 5
LNAPL Analytical Data

	Location	MW-2	MW-5A
	Sample ID	MW2-4-14 LNAPL	MW5A-4-14 LNAPL
	Sample Date	05/07/2015	05/07/2015
Analyte	**Units**		
Metals by USEPA 6020A			
Lead	mg/kg	27.5	1 U
Volatile Organic Compounds by USEPA 8260C			
Benzene	mg/kg	60 U	60 U
Ethylbenzene	mg/kg	660	210
Toluene	mg/kg	100 U	100 U
Total Xylenes	mg/kg	220	630
1,2-Dibromoethane	mg/kg	100 U	100 U
1,2-Dichloroethane	mg/kg	100 U	100 U
2,2,4-Trimethylpentane	mg/kg	4,600	1,000 U
Ethanol	mg/kg	100,000 U	100,000 U
Methyl Tert-Butyl Ether	mg/kg	100 U	100 U
Naphthalene	mg/kg	690	210
n-Butane	mg/kg	1,000 U	1,000 U
n-Hexane	mg/kg	500 U	500 U
Total Petroleum Hydrocarbons by NWTPH-Gx			
Gasoline-Range Organics	mg/kg	150,000	61,000
Total Petroleum Hydrocarbons by NWTPH-Dx			
Diesel-Range Organics	mg/kg	900,000	870,000 J
Oil-Range Organics	mg/kg	50,000 U	50,000 U

Abbreviations:

LNAPL Light non-aqueous phase liquid

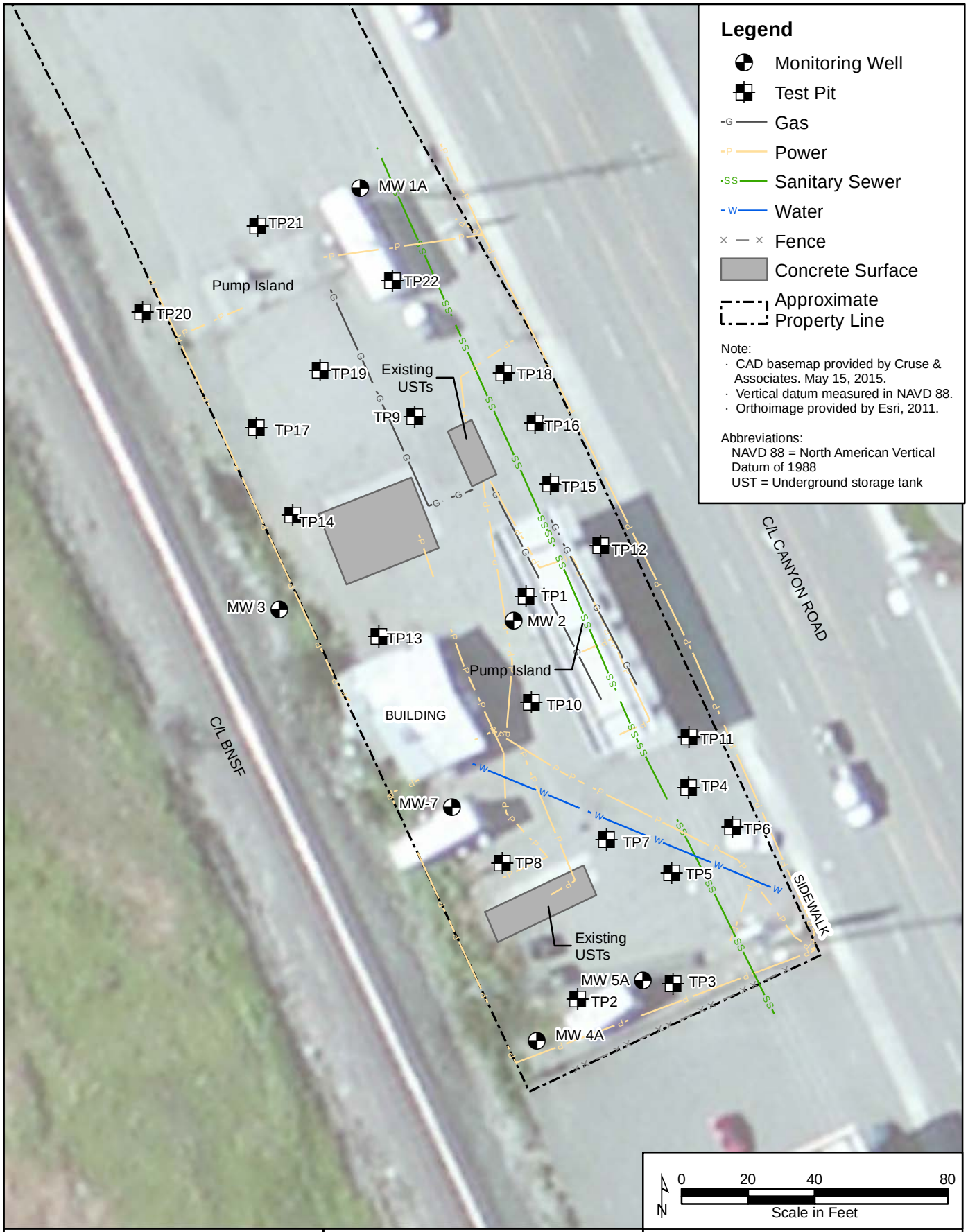
mg/kg Milligrams per kilogram

Qualifiers:

J Analyte was detected, concentration is considered an estimate.

U Analyte was not detected at the given reporting limit.

Figures



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Site Investigation Summary and Supplemental Work Plan
Big B Mini Mart
Ellensburg, Washington

Figure 1
Site Map

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\SIS_SUPP_WP\Figure 1 Site Map.mxd
1/5/2016

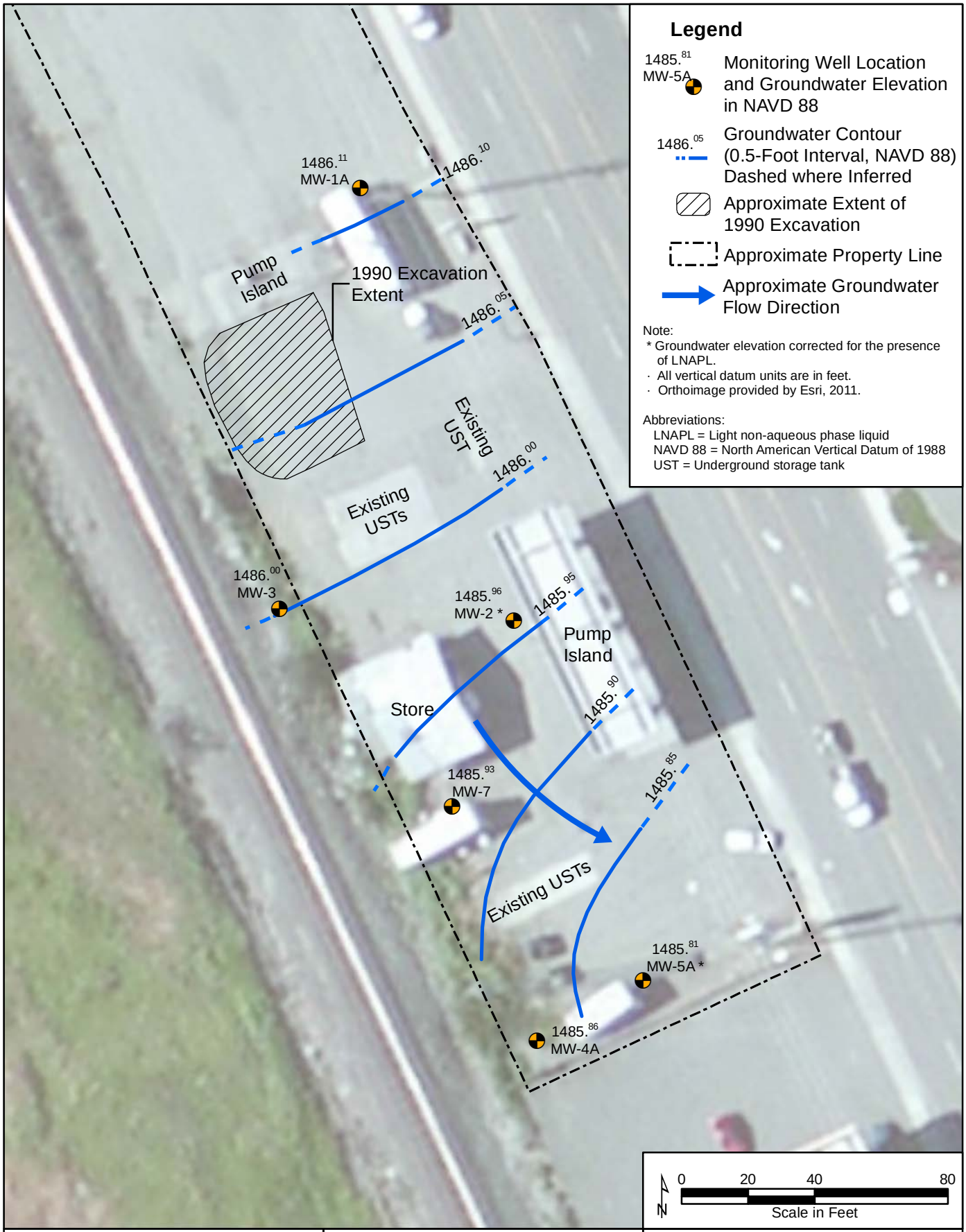

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Figure 2
Groundwater Elevation and Contour Map
May 7, 2015

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\SIS_SUPP_WP\Figure 2 Groundwater Contours May 2015.mxd
1/5/2016

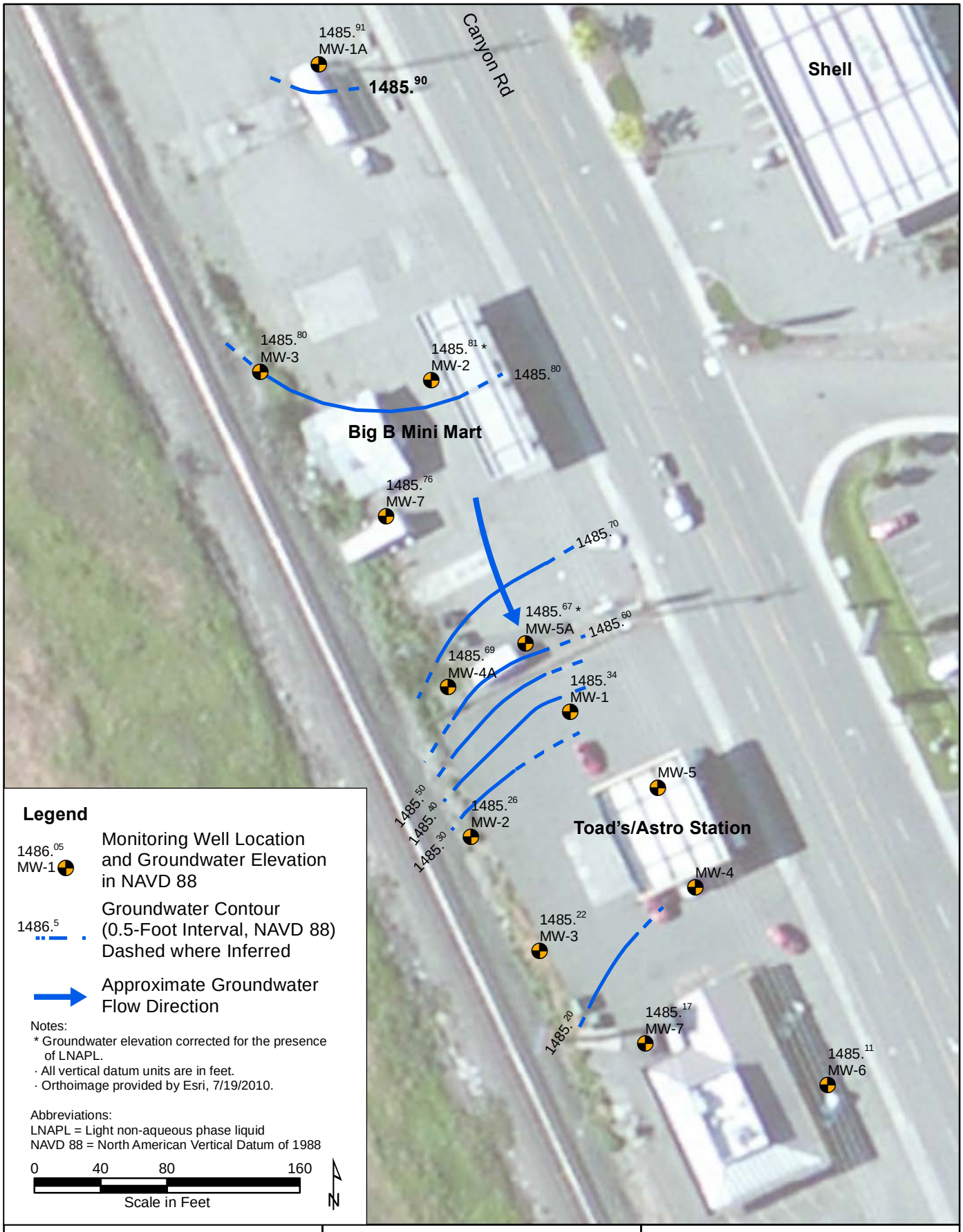

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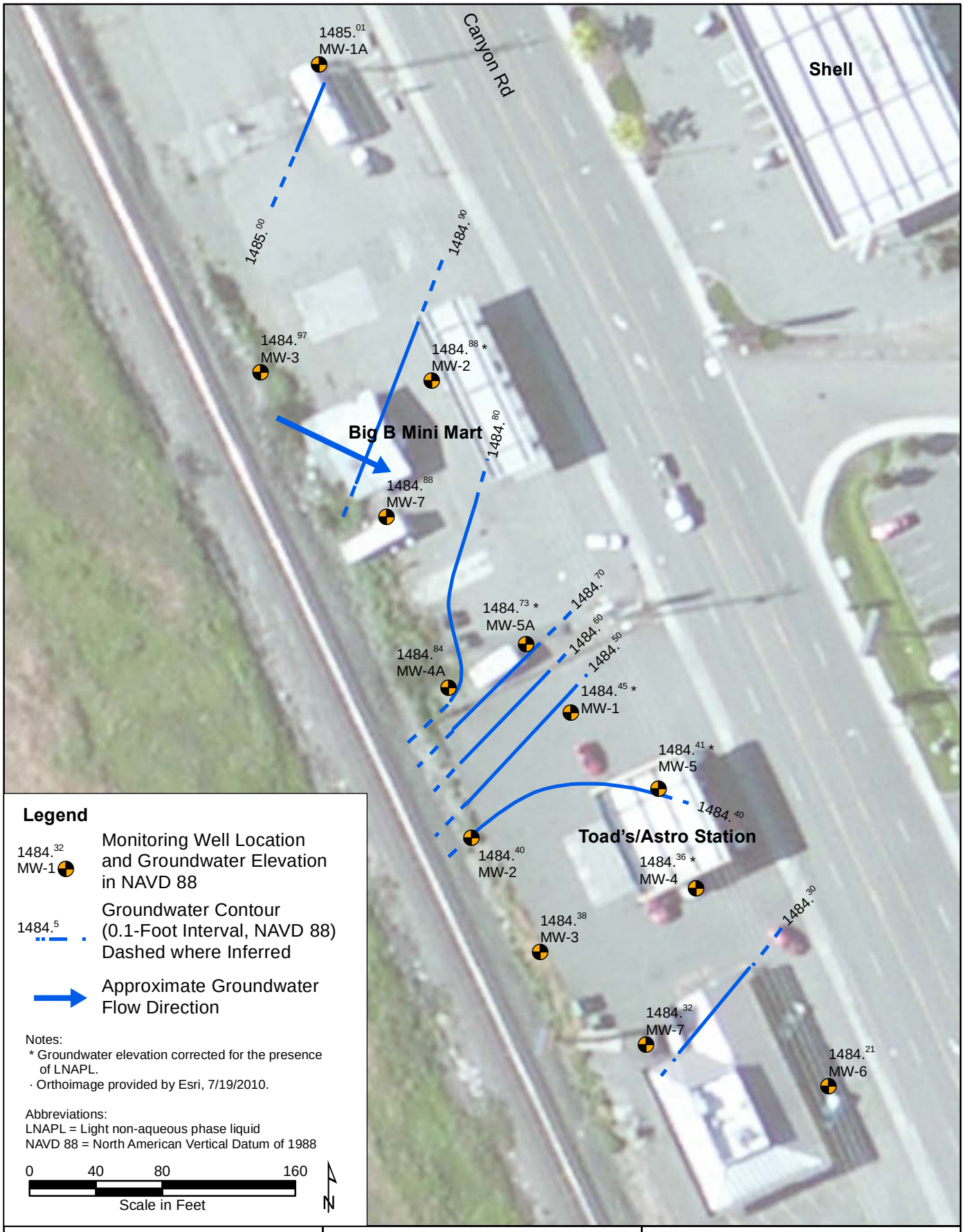
Figure 3
Groundwater Elevation and Contour Map
July 16, 2015

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\SIS_SUPP_WP\Figure 3 Extended Groundwater Elevation and Contour Map July 2015.mxd
1/5/2016



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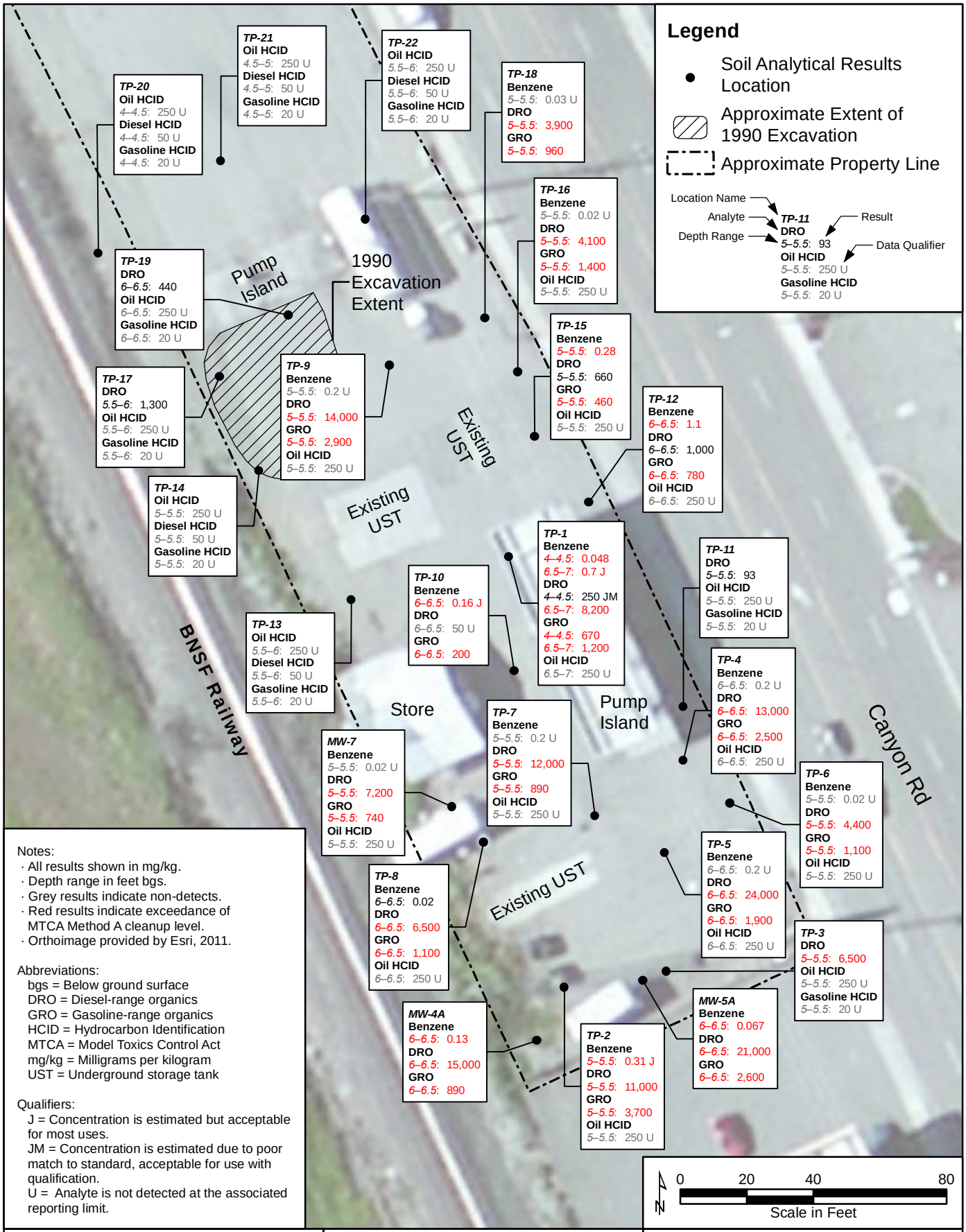
Big B Mini Mart
Ellensburg, Washington

Figure 4
Groundwater Elevation and Contour Map
October 20, 2015

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\SIS_SUPP_WP\Figure 4 Extended Groundwater Elevation and Contour Map October 2015.mxd
1/5/2016



Notes:
- All results shown in mg/kg.
- Depth range in feet bgs.
- Grey results indicate non-detects.
- Red results indicate exceedance of MTCA Method A cleanup level.
- Orthoimage provided by Esri, 2011.

Abbreviations:
bgs = Below ground surface
DRO = Diesel-range organics
GRO = Gasoline-range organics
HCID = Hydrocarbon Identification
MTCA = Model Toxics Control Act
mg/kg = Milligrams per kilogram
UST = Underground storage tank

Qualifiers:
J = Concentration is estimated but acceptable for most uses.
JM = Concentration is estimated due to poor match to standard, acceptable for use with qualification.
U = Analyte is not detected at the associated reporting limit.

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Ellensburg, Washington

Figure 5
Soil Analytical Results

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\SIS_SUPP_WP\Figure 5 Soil Analytical Results.mxd
1/5/2016

Legend

- Monitoring Well
- Test Pit
- Gas
- Power
- Sanitary Sewer
- Water
- Fence
- Approximate Property Line
- Approximate Extent of Benzene in Soil at Concentrations Greater than MTCA Method A Cleanup Levels. (Dashed Where Inferred)
- Approximate Extent of Diesel-Range Organics in Soil at Concentrations Greater than MTCA Method A Cleanup Levels. (Dashed Where Inferred)
- Approximate Extent of Gasoline-Range Organics in Soil at Concentrations Greater than MTCA Method A Cleanup Levels. (Dashed Where Inferred)

Note:
· CAD basemap provided by Cruse & Associates. May 15, 2015.

Abbreviation:
MTCA = Model Toxics Control Act

N

0 20 40 80

Scale in Feet

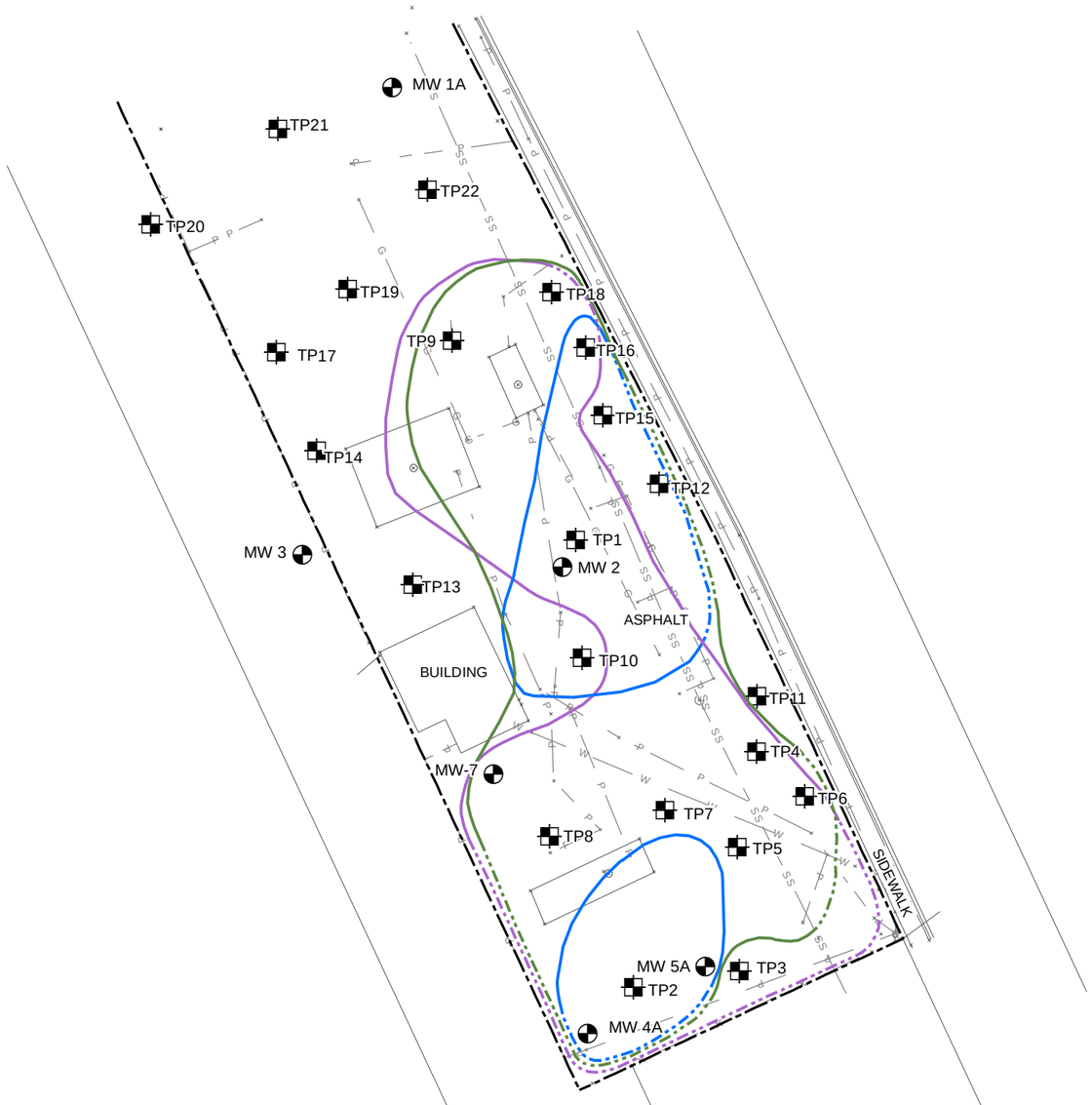

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Figure 6
Approximate Extent of Gasoline-Range and Diesel-Range Organics and Benzene in Soil

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\Supplemental Work Plan\Figure 6 Approximate Extent Soil.mxd
1/5/2016

Legend

- Monitoring Well
- Test Pit
- G — Gas
- P — Power
- SS — Sanitary Sewer
- W — Water
- × — Fence
- Approximate Property Line
- Approximate Extent of LNAPL Based on Residual Saturation Levels (Dashed Where Inferred)
- Approximate Residual Saturation Levels
  - Gasoline = 1,700 mg/kg
  - Diesel = 8,000 mg/kg

Note:
· CAD basemap provided by Cruse & Associates. May 15, 2015.

Abbreviations:
LNAPL = Light non-aqueous phase liquid
mg/kg = Milligrams per kilogram

N

0 20 40 80
Scale in Feet

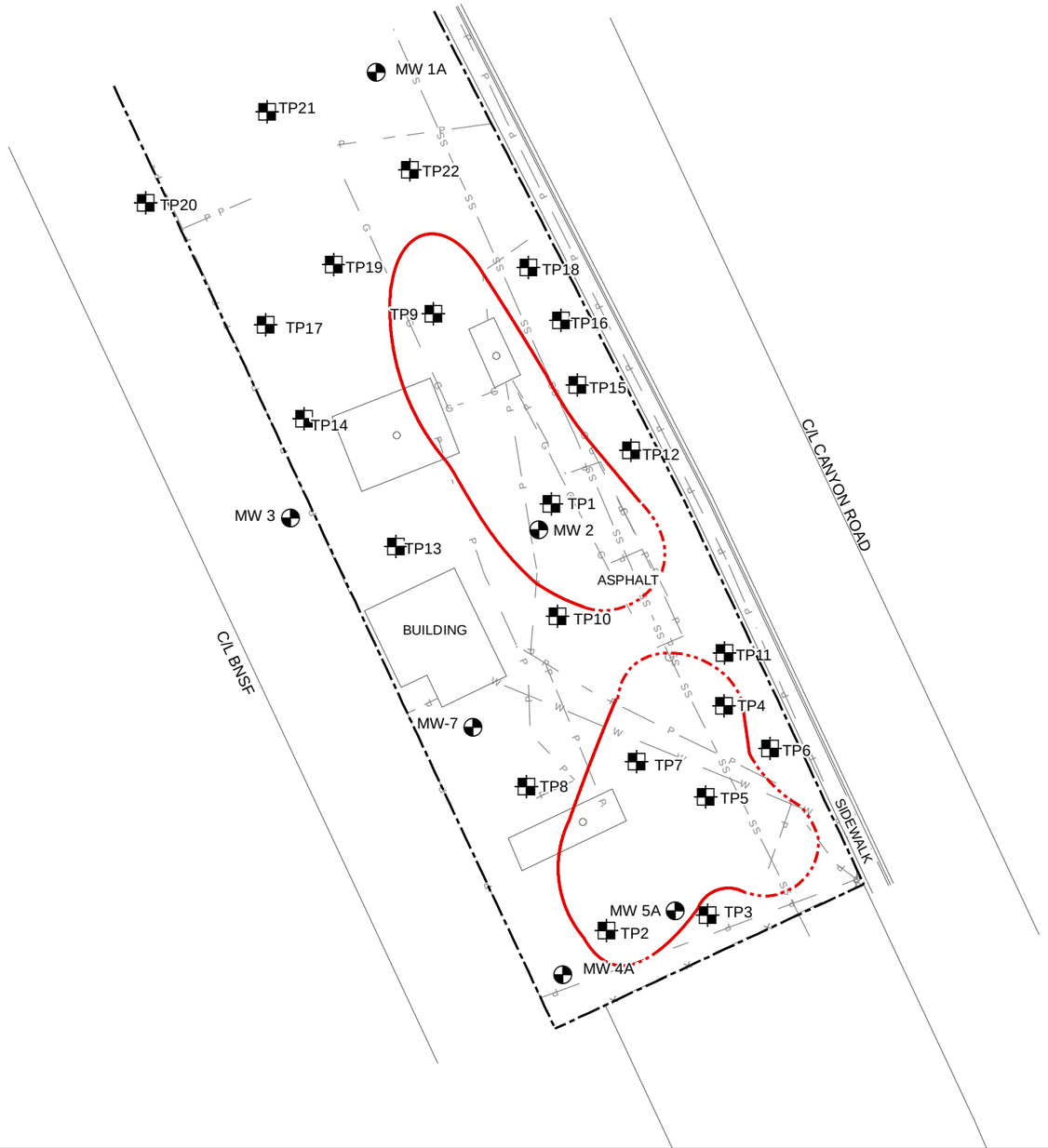

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Figure 7
Approximate LNAPL Extent

\\Gimli\enterprise\GIS\Projects\CL-Ellensburg\MXD\Supplemental Work Plan\Figure 7 Approximate LNAPL Extent.mxd
1/5/2016

Legend

- Proposed Monitoring Well Location
- Proposed Piezometer Location
- Monitoring Well
- G — Gas
- P — Power
- SS — Sanitary Sewer
- W — Water
- × — Fence
- Approximate Property Line
- Approximate Extent of LNAPL Based on Residual Saturation Levels (Dashed Where Inferred)

Approximate Residual Saturation Levels
Gasoline = 1,700 mg/kg
Diesel = 8,000 mg/kg

Note:
· CAD basemap provided by Cruse & Associates. May 15, 2015.
· Field conditions may dictate the actual location of any new wells.

Abbreviations:
LNAPL = Light non-aqueous phase liquid
mg/kg = Milligrams per kilogram

N
0 20 40 80
Scale in Feet

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Figure 8
Proposed Piezometer and Well Locations

I:\GIS\Projects\CL-Ellensburg\MXD\Supplemental Work Plan\Figure 8 Proposed Monitoring.mxd
2/4/2016

Attachment 1
Boring and Test Pit Logs

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PROJECT: CL-Ellensburg	LOCATION: 1611 S Canyon Rd Ellensburg, WA	WELL ID: MW-1A	
LOGGED BY: J. Pracht	DRILL DATE: 5/5/2015	ECOLOGY WELL ID: RJA-772	
DRILLED BY: James Goble, Cascade	BORING DIAMETER: 2"	COORDINATE SYSTEM: NAD 83 WA SP S	
DRILLING EQUIPMENT: Full Size Hollow-Stem Auger, CME75	SCREENED INTERVAL: 4-14	NORTHING: 599552.24	EASTING: 1629569.59
DRILLING METHOD: Hollow-Stem Auger		GROUND SURFACE ELEV.: 1490.76	TOC ELEVATION: 1490.76
SAMPLING METHOD: Split Spoon, 1.5', 300lb Hammer		TOTAL DEPTH (ft bgs): 14	DEPTH TO WATER (ft bgs): 6

Depth (feet)	USCS Symbol	Description	Drive/ Recovery	# of Blows	PID (ppm)	Sample ID	Well Construction
0	AS	Asphalt top 6 inches.					Monument
1	SP	Dark brown, medium to coarse **SAND** with trace silt and small to medium gravel. No odor. No sheen.					Concrete
2							Bentonite Chips
3				6			Sch. 40 PVC
4				7 9	1.8		2/12 Sand
5							
6	GP	Dark gray, moist, well graded **GRAVEL** with trace medium sand. No odor. No sheen. Moist.		10 10 11	0		10-Slot Screen
7							
8	SP	Brownish-gray, fine to medium **SAND** with 30% large gravels. No odor. No sheen. Wet.		26 21 29	0.4		
9		No split spoons collected past 9'.					
10		Well drilled to 14'.					
11							
12							
13							
14							

ABBREVIATIONS:
ft bgs = feet below ground surface
USCS = Unified Soil Classification System
ppm = parts per million
▼ = denotes groundwater table

NOTES:

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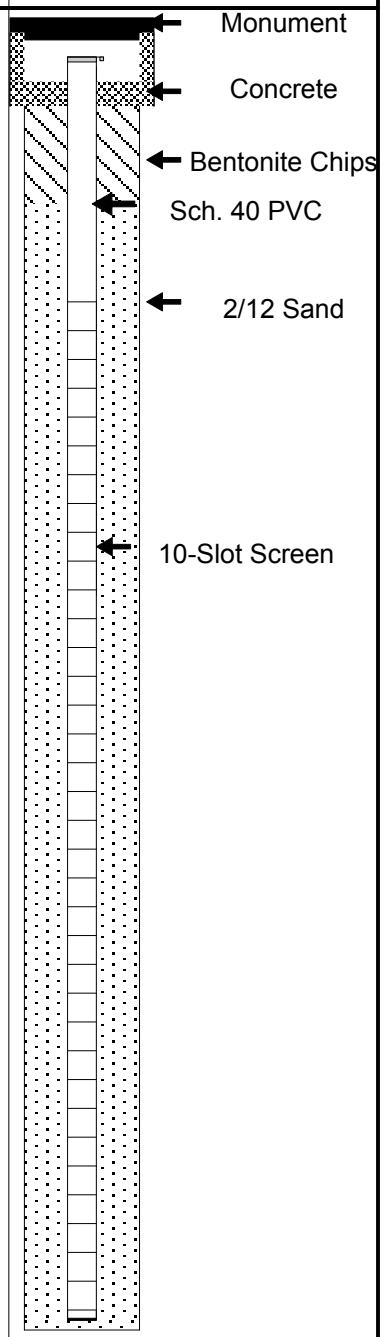
PROJECT: CL-Ellensburg	LOCATION: 1611 S Canyon Rd Ellensburg, WA	WELL ID: MW-4A	
LOGGED BY: J. Pracht	DRILL DATE: 5/5/2015	ECOLOGY WELL ID: RJA-774	
DRILLED BY: James Goble, Cascade	BORING DIAMETER: 2"	COORDINATE SYSTEM: NAD 83 WA SP S	
DRILLING EQUIPMENT: Full Size Hollow-Stem Auger, CME75	SCREENED INTERVAL: 4-14	NORTHING: 599296.18	EASTING: 1629622.63
DRILLING METHOD: Hollow-Stem Auger		GROUND SURFACE ELEV.: 1489.46	TOC ELEVATION: 1489.73
SAMPLING METHOD: Split Spoon, 1.5', 300lb Hammer		TOTAL DEPTH (ft bgs): 14	DEPTH TO WATER (ft bgs): 5

Depth (feet)	USCS Symbol	Description	Drive/ Recovery	# of Blows	PID (ppm)	Sample ID
0	TS	Topsoil and grass top 6 inches.				
1						
2						
3	SP	Brown, fine to medium **SAND** with some small gravel. No odor. No sheen.		6 7 10	761	
4		Dark gray, medium to coarse **SAND** with small to medium gravel. Moderate odor. Moderate sheen. Moist.				
5		Same as above, heavy sheen, wet.		8 9	1055	
6				8	1248	MW-4A-6-6.5 @1415
7		Same as above, slight sheen.		7 7	257 67.2	
8				11		
9		No split spoons collected past 9'.				
10		Well drilled to 14'.				
11						
12						
13						
14						



ABBREVIATIONS:
ft bgs = feet below ground surface
ppm = parts per million
USCS = Unified Soil Classification System
▼ = denotes groundwater table

NOTES:

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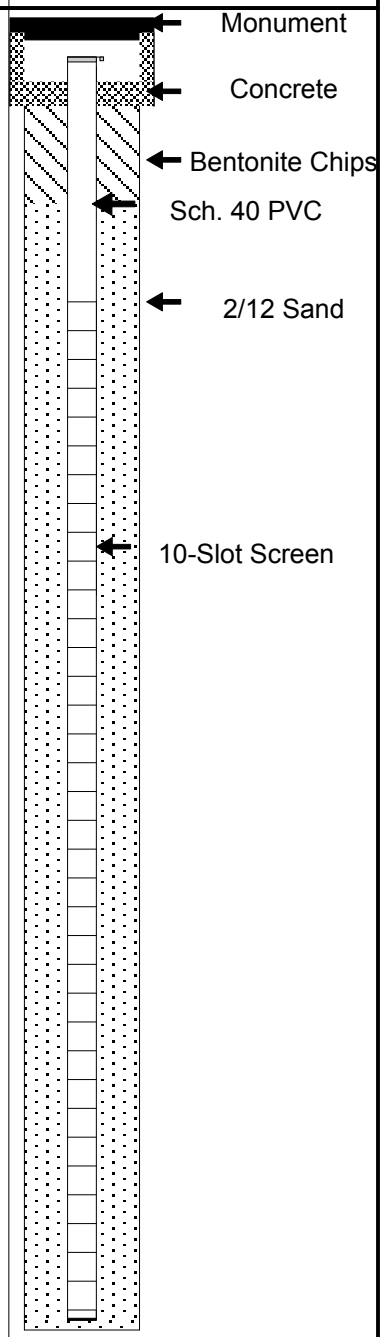
PROJECT: CL-Ellensburg	LOCATION: 1611 S Canyon Rd Ellensburg, WA	WELL ID: MW-5A	
LOGGED BY: J. Pracht	DRILL DATE: 5/5/2015	ECOLOGY WELL ID: RJA-775	
DRILLED BY: James Goble, Cascade	BORING DIAMETER: 2"	COORDINATE SYSTEM: NAD 83 WA SP S	
DRILLING EQUIPMENT: Full Size Hollow-Stem Auger, CME75	SCREENED INTERVAL: 4-14	NORTHING: 599314.19	EASTING: 1629654.48
DRILLING METHOD: Hollow-Stem Auger		GROUND SURFACE ELEV.: 1489.95	TOC ELEVATION: 1490.34
SAMPLING METHOD: Split Spoon, 1.5', 300lb Hammer		TOTAL DEPTH (ft bgs): 14	DEPTH TO WATER (ft bgs): 6

Depth (feet)	USCS Symbol	Description	Drive/ Recovery	# of Blows	PID (ppm)	Sample ID
0	AS	Asphalt top 6 inches.				
1	SP	Brown, medium to coarse **SAND** with well graded gravel. No odor. No sheen.				
2						
3		Dark gray, fine to medium, silty **SAND** with some small gravel. Slight odor. Slight sheen. Moist.		9 14 14	607 398	
4		Dark brown, medium to coarse **SAND** with well graded gravel. Strong odor. Heavy sheen. Moist.				
5	GP	Dark brown, well graded **GRAVEL** with medium to coarse sand. Stong odor. Heavy sheen. Wet.		10 11 14	1223	MW-5A-6-6.5 @1545
6						
7	SP	Dark gray, medium to coarse **SAND** with medium gravel. Moderate odor. Slight sheen. Wet.		10 10 14	224 67	
8						
9	GP	Dark gray, well graded **GRAVEL** with medium to coarse sand. Moderate odor. Wet. No split spoons collected past 9'.				
10		Well drilled to 14'.				
11						
12						
13						
14						



ABBREVIATIONS:
ft bgs = feet below ground surface
ppm = parts per million
USCS = Unified Soil Classification System
▼ = denotes groundwater table

NOTES:

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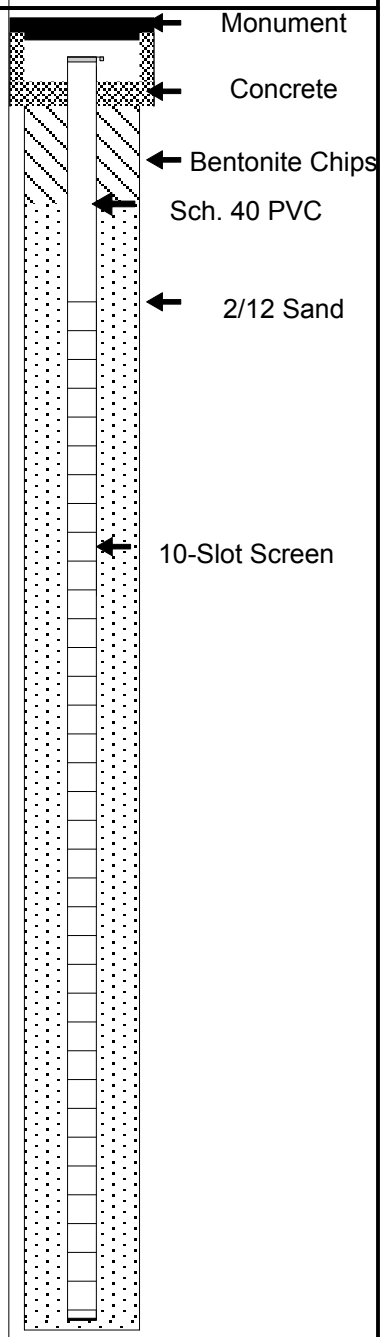
PROJECT: CL-Ellensburg	LOCATION: 1611 S Canyon Rd Ellensburg, WA	WELL ID: MW-7	
LOGGED BY: J. Pracht	DRILL DATE: 5/5/2015	ECOLOGY WELL ID: RJA-773	
DRILLED BY: James Goble, Cascade	BORING DIAMETER: 2"	COORDINATE SYSTEM: NAD 83 WA SP S	
DRILLING EQUIPMENT: Full Size Hollow-Stem Auger, CME75	SCREENED INTERVAL: 4-14	NORTHING: 599366.38	EASTING: 1629597.15
DRILLING METHOD: Hollow-Stem Auger		GROUND SURFACE ELEV.: 1490.72	TOC ELEVATION: 1491.11
SAMPLING METHOD: Split Spoon, 1.5', 300lb Hammer		TOTAL DEPTH (ft bgs): 14	DEPTH TO WATER (ft bgs): 6

Depth (feet)	USCS Symbol	Description	Drive/ Recovery	# of Blows	PID (ppm)	Sample ID
0	AS	Asphalt top 6 inches.				
1	SP	Brown, medium to coarse **SAND** with small to medium gravel. No odor. No sheen.		1		
2				2	815	
3				2		
4	ML	Dark gray, sandy **SILT** with trace medium gravel. Slight odor; slight sheen.		4	1059	MW-7-5-5.5 @1220
5		Same as above, heavy sheen.		3	42	
6	SP	Dark gray, medium to coarse **SAND**. Slight odor. Slight sheen. Moist. Light brown, medium to coarse **SAND** with some small gravel. Slight odor. Slight sheen. Wet.		4		
7						
8		Same as above.		10	19.8	
9		Dark gray, medium to coarse **SAND** with medium gravel. No odor. Slight sheen. No split spoons collected past 9'.		12	10	
10		Well drilled to 14".		13		
11						
12						
13						
14						

Well Construction



ABBREVIATIONS:
ft bgs = feet below ground surface
ppm = parts per million
USCS = Unified Soil Classification System
▼ = denotes groundwater table

NOTES:

Attachment 1
Test Pit Soil Logs

Test Pit TP-1						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–2	FILL	Brown and 5/8 minus fill: angular crushed rock and sand.	--	--	--	
2–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	2–2.5	0.8	Moist	
3–3.75	ML	Dark brown, stiff SILT with organic debris; slight odor; slight sheen.	3.5–4	357	Moist	
3.75–4.5		Olive gray, stiff, sandy SILT with some organics; strong odor; heavy sheen.	4–4.5	4,474	Moist to Wet	TP1-4-4.5
4.5–5.5	SP	Olive gray, medium dense, gravelly SAND with 15% gravel; strong odor; medium sheen.	5–5.5	3,780	Saturated	
5.5–6.5	GP	Gray, medium dense, sandy GRAVEL with 20% sand; strong odor; medium sheen.	--	--	Saturated	
6.5–7	SP	Gray, medium dense, gravelly, coarse SAND with 30% gravel; strong odor; medium sheen.	6.5–7	2,360	Saturated	TP1-6.5-7

Test Pit TP-1 completed to 7 feet on 05/06/2015.
Groundwater encountered at 5.25 feet bgs.

Test Pit TP-2						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	1.5–2	0.8	Moist	
3–4.5	ML	Olive gray to dark brown, stiff SILT with organic debris; organic odor; no sheen.	3–3.5	26.4	Moist	
4.5–5.75	SP	Gray, medium dense, gravelly, medium to coarse SAND with 40% gravel; strong odor; moderate to heavy sheen.	5–5.5	1,073	Wet	TP2-5-5.5
5.75–6.5	GP	Gray, medium dense, sandy GRAVEL with coarse sand; moderate odor; moderate sheen.	6–6.5	630	Saturated	

Test Pit TP-2 completed to 6.5 feet on 05/06/2015.
Groundwater encountered at 5.5 feet bgs.

Test Pit TP-3						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Light brown to brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
3.5–5	ML	Dark brown, stiff SILT with organics; organic odor; no sheen.	4–4.5	153	Moist	
5–5.25	SP	Gray, medium SAND lens; strong odor; moderate sheen.	5–5.5	1,335	Wet	TP3-5-5.5
5.25–6.25	ML	Dark brown to gray, stiff, SILT with organics; moderate odor; slight sheen.	--	--	--	
6.25–7	GP	Gray, dense, sandy GRAVEL; moderate odor; slight sheen.	6.5–7	335	Saturated	

Test Pit TP-3 completed to 7 feet on 05/06/2015.
Groundwater encountered at 5.5 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-4						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3.5	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
3.5–5	ML	Dark brown to olive gray, stiff SILT with abundant organic material; organic odor; no sheen.	3.5–4	8.1	--	
5–6	SP	Gray, medium SAND lens; strong odor; moderate sheen.	5–5.5	601	Wet	
6–7.25		Same as above; strong odor; heavy sheen.	6–6.5	1,470	Wet to Saturated	TP4-6-6.5
7.25–7.75	OL	Dark brown to gray, stiff, organic SILT; no odor; no sheen.	7.25–7.75	340	Saturated	

Test Pit TP-4 completed to 7.75 feet on 05/06/2015.
Groundwater encountered at 6.5 feet bgs.

Test Pit TP-5						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3.5	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
3.5–5.25	ML	Dark brown to olive gray, stiff SILT with abundant organic debris; slight organic odor; no sheen.	4–4.5	113	Moist	
5–6	SP	Olive gray, medium dense, gravelly, medium to coarse SAND with 40% gravel; strong odor; moderate sheen.	5–5.5	603	Wet	
6–6.5		Same as above; strong odor; heavy sheen.	6–6.5	2,528	Wet	TP5-6-6.5
6.5–7		Same as above.	--	--	Saturated	

Test Pit TP-5 completed to 7 feet on 05/06/2015.
Groundwater encountered at 6.5 feet bgs.

Test Pit TP-6						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
3–5	ML	Olive gray, stiff SILT with organic debris; organic odor; no sheen.	3–3.5	61	Moist	
5–6	SP	Olive gray, medium dense, gravelly SAND; strong odor; heavy sheen.	5–5.5	1,790	Wet	TP6-5-5.5
6–6.5		Same as above.	6–6.5	1,283	Wet	
6.5–7.25	GP	Gray, medium dense, sandy GRAVEL; strong odor; moderate sheen.	6.5–7	408	Saturated	

Test Pit TP-6 completed to 7.25 feet on 05/06/2015.
Groundwater encountered at 7 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-7						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
3–4.75	ML	Dark brown, stiff SILT with organic debris; organic odor; slight sheen.	3–3.5	96	Moist	
4.75–6	SP	Gray, medium dense, fine to medium SAND; strong odor; heavy sheen.	4.75–5.25	767	Moist to Wet	TP7-5-5.5
6–7	GP/SP	Gray, medium dense, sandy GRAVEL/gravelly coarse SAND; moderate odor; moderate sheen.	6–6.5	516	Saturated	

Test Pit TP-7 completed to 7 feet on 05/06/2015.
Groundwater encountered at 6.5 feet bgs.

Test Pit TP-8						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3.5	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	3–3.5	33	--	
3.5–5.25	ML	Dark brown, stiff SILT with organic debris; organic odor; no sheen.	4–4.5	42	Moist	
5.25–6	SP	Olive gray, medium dense, fine to medium SAND; strong odor; moderate sheen.	5.75–6.25	1,087	Wet	TP8-6-6.5
6–7.5	GP	Olive gray, medium dense, medium to coarse, sandy GRAVEL with 40% sand; strong odor; heavy sheen.	--	--	Wet to Saturated	

Test Pit TP-8 completed to 7.5 feet on 05/06/2015.
Groundwater encountered at 6.75 feet bgs.

Test Pit TP-9						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–2.75	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	1.5–2	0.3	Moist	
2.75–3.5	ML	Dark brown, stiff SILT with organic debris; organic odor; no sheen.	3–3.5	33	--	
3.5–4.5	SP	Olive gray, medium dense, fine to medium SAND with 15% gravel; moderate odor; moderate sheen.	--	--	Moist to Wet	
4.5–5	GP	Olive gray, medium dense, sandy GRAVEL with 40% sand; strong odor; strong sheen.	4.5–5	1,311	Wet	
5–5.5			5–5.5	1,817	Wet	TP9-5-5.5
5.5–6.5		Same as above.	6–6.5	--	Saturated	

Test Pit TP-9 completed to 6.5 feet on 05/06/2015.
Groundwater encountered at 5.5 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-10						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–4	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	Moist	
4–5	ML	Olive gray, stiff SILT with organic debris; slight odor; no sheen.	4–4.5	230	--	
5–5.5		Same as above; moderate odor; slight sheen.	5–5.5	906	--	
5.5–6.5	SP	Gray, medium dense, fine to medium SAND with 10% gravel; strong odor; heavy sheen.	6–6.5	4,409	Wet	TP10-6-6.5
6.5–7.5		Same as above; strong odor; moderate sheen.	7–7.5	2,485	Saturated	

Test Pit TP-10 completed to 7.5 feet on 05/06/2015.
Groundwater encountered at 7 feet bgs.
Encountered damaged metal conduit leading to dispensers. Moved south 3 feet.

Test Pit TP-11						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	Moist	
3–4.5	ML	Dark brown, stiff SILT with organics; organic odor; no sheen.	3–3.5	0.8	Moist	
4.5–4.75		Same as above.	4.5–5	1.5	Moist	
4.75–6	SP	Olive gray, medium dense, gravelly, medium to coarse SAND; moderate odor; moderate sheen.	5–5.5	231	Wet	TP11-5-5.5
6–6.5		Same as above.	6–6.5	70	Saturated	
6.5–7	ML	Gray to dark brown, stiff SILT; slight odor, no sheen.	--	--	Wet	

Test Pit TP-11 completed to 7 feet on 05/06/2015.
Groundwater encountered at 6.5 feet bgs.

Test Pit TP-12						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP/GP	Brown, medium dense, gravelly SAND/sandy GRAVEL with medium to coarse SAND; no odor; no sheen.	--	--	Moist	
3–3.5	ML	Olive gray, stiff organic SILT with 30% sand; organic odor; no sheen.	3–3.5	7.1	--	
3.5–4.25	SP	Gray, medium dense, medium SAND with 20% gravel; no odor; no sheen.	4–4.5	4.2	Moist	
4.25–5.25	ML	Olive gray, stiff, sandy SILT; no odor; no sheen.	--	--	Moist	
5.25–6	SP	Gray, medium dense, fine to medium SAND with 10% gravel and 5% silt; slight odor; slight sheen.	5–5.5	318	Wet	
6–7		Same as above.	6–6.5	1,733	Saturated	TP12-6-6.5

Test Pit TP-12 completed to 7 feet on 05/06/2015.
Groundwater encountered at 6.5 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-13						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP/GP	Brown, medium dense, gravelly SAND/sandy GRAVEL with medium to coarse SAND and large cobbles; no odor; no sheen.	--	--	Moist	
3–5	ML	Brown, hard, sandy SILT with low plasticity; no odor; no sheen.	3–3.5	0.8	Moist	
5–6.5		Same as above; no odor; no sheen.	5–5.5	1.8	Wet	TP13-5.5-6

Test Pit TP-13 completed to 6.5 feet on 05/05/2015.
Groundwater encountered at 6.3 feet bgs.

Test Pit TP-14						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–2.25	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	1.5–2	0.8	Moist	
2.25–2.75	SP/GP	Sandy GRAVEL/gravelly SAND.	2.5–3	2.9	Moist	
2.75–4	SP	Gray, medium dense, gravelly, cobbly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	--	
4–5		Same as above; brown SAND; no odor; no sheen.	4–4.5	3.1	--	
5–5.5		Same as above; gray, gravelly cobbly, medium to coarse SAND; slight odor; slight sheen.	5–5.5	215	Wet	TP14-5-5.5
5.5–6	GP	Grades to sandy GRAVEL.	--	--	Saturated	

Test Pit TP-14 completed to 6.0 feet on 05/05/2015.
Groundwater encountered at 5.5 feet bgs.

Test Pit TP-15						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	Moist	
3–4		Same as above; gray gravelly SAND; strong odor; slight sheen.	3–3.5	692	Moist	
4–5		Same as above; strong odor; moderate sheen.	4–4.5	781	Moist to Wet	
5–6.5		Same as above; strong odor; heavy sheen.	5–5.5	1,352	Wet to Saturated	TP15-5-5.5

Test Pit TP-15 completed to 6.5 feet on 05/06/2015.
Groundwater encountered at 5.75 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-16						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–2.5	SP/GP	Brown, medium dense, gravelly, medium to coarse SAND/sandy GRAVEL with 30% cobbles; no odor; no sheen.	--	--	--	
2.5–3	SM/ML	Gray to black, silty SAND/sandy SILT with organic debris; organic odor; no sheen.	2.5–3	307	Moist	
3–4	SP/GP	Brown, medium dense, gravelly, medium to coarse SAND/sandy GRAVEL with 30% cobbles; no odor; no sheen.	--	--	--	
4–5	ML	Black organic SILT with fine SAND and low plasticity; no odor; no sheen.	4–4.5	21.8	Wet	
5–6		Olive gray, medium dense, gravelly, cobbly, medium to coarse SAND; strong odor; heavy sheen.	5–5.5	1,696	Wet to Saturated	TP16-5-5.5

Test Pit TP-16 completed to 6 feet on 05/05/2015.
Groundwater encountered at 5.25 feet bgs.

Test Pit TP-17						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SM	Brown, medium dense, silty, gravelly, fine to coarse SAND with 30% gravel and cobbles and 15% silt; no odor; no sheen. (FILL?)	--	--	Moist	
3–4		Same as above; no odor; no sheen. (FILL?)	3.5–4	0.5	Moist	
4–5		Same as above; no odor; no sheen.	4.5–5	0.9	Moist	
5–6	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% gravel and cobble; slight odor; slight sheen.	5.5–6	236	Wet	TP17-5.5-6

Test Pit TP-17 completed to 6 feet on 05/05/2015.
Groundwater encountered at 5.8 feet bgs.

Test Pit TP-18						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, cobbly, medium to coarse SAND with 40% gravel and cobbles; no odor; no sheen.	--	--	Moist	
3–5		Bluish-gray, medium dense, gravelly, cobbly, medium to coarse SAND with 40% gravel and cobble; slight odor; slight sheen.	3–3.5	425	Moist	
5–5.75		Same as above; strong odor; heavy sheen.	5–5.5	2,577	Wet	TP18-5-5.5

Test Pit TP-18 completed to 5.75 feet on 05/05/2015.
Groundwater encountered at 5.75 feet bgs.

Attachment 1
Test Pit Soil Logs

Test Pit TP-19						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SM	Dark brown, medium dense, silty, gravelly, cobbly, medium to coarse SAND; no odor; no sheen. (FILL?)	--	--	Moist	
3–4		Same as above; no odor. (Previous Excavation FILL?)	--	--	--	
4–5.5		Same as above; no odor; no sheen. (FILL?)	--	--	--	
5.5–6.75	SP	Gray, medium dense, gravelly SAND; moderate odor; moderate sheen.	6–6.5	74	Wet	TP19-6-6.5

Test Pit TP-19 completed to 6.75 feet on 05/05/2015.
Groundwater encountered at 6.25 feet bgs.

Test Pit TP-20						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–2.5	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	Moist	
2.5–4		Same as above; no odor; no sheen.	--	--	Moist	
4–4.25		Same as above; no odor; no sheen.	4–4.5	0.8	Wet	TP20-4-4.5
4.25–5	SP/GP	Gravelly SAND/sandy GRAVEL; no odor; no sheen.	--	--	Saturated	

Test Pit TP-20 completed to 5 feet on 05/05/2015.
Groundwater encountered at 4.8 feet bgs.

Test Pit TP-21						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	--	--	Moist	
3–4.5	ML	Dark brown, stiff, SILT with organic debris; no odor; no sheen.	--	--	Moist	
4.5–5	SP	Brown, medium dense, fine to medium SAND; no odor; no sheen.	4.5–5	66	Wet	TP21-4.5-5
5–5.5	GP	Brown to gray, medium dense, sandy GRAVEL; no odor; no sheen.	--	--	Saturated	

Test Pit TP-21 completed to 5.5 feet on 05/06/2015.
Groundwater encountered at 5 feet bgs.

Test Pit TP-22						
Depth (feet)	**USCS Symbol**	**Description**	**Sample Depth (feet)**	**PID (ppm)**	**Moisture**	**Sample ID**
0–0.5	AS	Asphalt and road base fill.	--	--	--	
0.5–3.5	SP	Brown, medium dense, gravelly, medium to coarse SAND with 40% rounded gravel and cobbles; no odor; no sheen.	2–2.5	1.9	Moist	
3.5–4.5	ML	Dark brown, stiff SILT with organic debris; no odor; no sheen.	4–4.5	2.5	Moist	
4.5–5.5		Same as above; no odor; no sheen.	--	--	Moist	
5.5–6.5	ML/SM	Dark brown, medium dense, silty SAND/sandy SILT with some organic debris; no odor; no sheen.	5.5–6	3.3	Wet to Saturated	TP22-5.5-6

Test Pit TP-22 completed to 6.5 feet on 05/06/2015.
Groundwater encountered at 6 feet bgs.

Attachment 2
Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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May 19, 2015

Gabe Cisneros, Project Manager
Floyd-Snider
Two Union Square, Suite 600
601 Union St
Seattle, WA 98101

Dear Mr. Cisneros:

Included are the results from the testing of material submitted on May 7, 2015 from the CL-Ellensburg, F&BI 505103 project. There are 71 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
FDS0519R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 7, 2015 by Friedman & Bruya, Inc. from the Floyd-Snider CL-Ellensburg, F&BI 505103 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
505103 -01	TP21-4.5-5
505103 -02	TP9-5-5.5
505103 -03	TP1-4-4.5
505103 -04	TP1-6.5-7
505103 -05	TP10-6-6.5B
505103 -06	TP10-6-6.5
505103 -07	TP22-5.5-6
505103 -08	TP22-6.5-6B
505103 -09	TP15-5-5.5
505103 -10	TP12-6-6.5
505103 -11	TP11-5-5.5
505103 -12	TP4-6-6.5
505103 -13	TP5-6-6.5
505103 -14	TP3-5-5.5
505103 -15	TP6-5-5.5
505103 -16	TP2-5-5.5
505103 -17	TP8-6-6.5
505103 -18	TP7-5-5.5
505103 -19	TP20-4-4.5
505103 -20	TP17-5.5-6.0
505103 -21	TP14-5-5.5
505103 -22	MW7-5-5.5
505103 -23	TP13-5.5-6
505103 -24	MW4A-6-6.5
505103 -25	TP19-6-6.5
505103 -26	MW5A-6-6.5
505103 -27	TP18-5-5.5
505103 -28	TP16-5-5.5
505103 -29	MW2-4-14 LNAPL
505103 -30	MW5A-4-14 LNAPL
505103 -31	MW4A-4-14
505103 -32	MW1A-4-14
505103 -33	MW7-4-14
505103 -34	MW3-4-14
505103 -35	MW1A-4-14B

CASE NARRATIVE (continued)

Laboratory ID	Floyd-Snider
505103 -36	Purge Water Waste-050715
505103 -37	Trip Blank

An EDB 8260C direct sparge internal standard failed the acceptance criteria in samples MW4A-6-6.5, MW5A-6-6.5, and TP18-5-5.5 due to matrix interferences. The data were flagged accordingly.

All other quality control requirements were acceptable.

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 56-165)
TP21-4.5-5 505103-01	ND	ND	ND	97
TP9-5-5.5 505103-02	D	D	ND	78
TP1-6.5-7 505103-04	D	D	ND	105
TP10-6-6.5B 505103-05	ND	ND	ND	101
TP22-5.5-6 505103-07	ND	ND	ND	97
TP22-6.5-6B 505103-08	ND	ND	ND	92
TP15-5-5.5 505103-09	D	D	ND	89
TP12-6-6.5 505103-10	D	D	ND	103
TP11-5-5.5 505103-11	ND	D	ND	99
TP4-6-6.5 505103-12	D	D	ND	94
TP5-6-6.5 505103-13	D	D	ND	ip
TP3-5-5.5 505103-14	ND	D	ND	121

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 56-165)
TP6-5-5.5 505103-15	D	D	ND	110
TP2-5-5.5 505103-16	D	D	ND	131
TP8-6-6.5 505103-17	D	D	ND	ip
TP7-5-5.5 505103-18	D	D	ND	ip
TP20-4-4.5 505103-19	ND	ND	ND	96
TP17-5.5-6.0 505103-20	ND	D	ND	95
TP14-5-5.5 505103-21	ND	ND	ND	93
MW7-5-5.5 505103-22	D	D	ND	ip
TP13-5.5-6 505103-23	ND	ND	ND	100
TP19-6-6.5 505103-25	ND	D	ND	106

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 56-165)
TP16-5-5.5 505103-28	D	D	ND	114
Method Blank 05-930 MB	ND	ND	ND	99
Method Blank 05-944 MB	ND	ND	ND	93

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15 and 05/11/15

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
TP1-4-4.5 505103-03 1/20	670	111
TP10-6-6.5 505103-06	200	145
MW4A-6-6.5 505103-24 1/50	890	117
MW5A-6-6.5 505103-26 1/50	2,600	138
TP18-5-5.5 505103-27 1/20	960	119
Method Blank 05-0933 MB	<2	104

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/13/15
Date Analyzed: 05/13/15 and 05/14/15

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
TP9-5-5.5 505103-02 1/10	<0.2	11	12	33	2,900	ip
TP1-6.5-7 505103-04 1/5	0.70	8.8	12	13	1,200	ip
TP15-5-5.5 505103-09	0.28	1.6	2.3	5.7	460	102
TP12-6-6.5 505103-10	1.1	3.9	4.0	6.7	780	130
TP4-6-6.5 505103-12 1/10	<0.2	4.1	15	20	2,500	143
TP5-6-6.5 505103-13 1/10	<0.2	1.3	6.8	19	1,900	128
TP6-5-5.5 505103-15 1/5	<0.02 j	1.1	3.8	9.4	1,100	124
TP2-5-5.5 505103-16 1/10	0.31	0.89	10	47	3,700	ip
TP8-6-6.5 505103-17 1/5	0.02 j	<0.1	2.5	14	1,100	117
TP7-5-5.5 505103-18 1/10	<0.2	<0.2	0.97	6.9	890	94

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/13/15
Date Analyzed: 05/13/15 and 05/14/15

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW7-5-5.5 505103-22 1/5	<0.02 j	<0.1	1.4	4.4	740	96
TP16-5-5.5 505103-28 1/5	<0.02 j	4.0	4.9	14	1,400	107
Method Blank 05-0938 MB2	<0.02	<0.02	<0.02	<0.06	<2	91

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
MW4A-4-14 505103-31	740	111
MW1A-4-14 505103-32	<100	99
MW7-4-14 505103-33	<100	98
MW3-4-14 505103-34	<100	95
MW1A-4-14B 505103-35	<100	97
Purge Water Waste-050715 505103-36	1,100	121
Method Blank 05-913 MB	<100	94

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

RESULTS FROM THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
MW2-4-14 LNAPL 505103-29 1/5000	150,000	122
MW5A-4-14 LNAPL 505103-30 1/5000	61,000	94
Method Blank 05-0933 MB	<2	104

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15 and 05/12/15
Date Analyzed: 05/08/15 and 05/12/15

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
TP9-5-5.5 505103-02	14,000	280 x	112
TP1-4-4.5 505103-03	250 x	<250	101
TP1-6.5-7 505103-04	8,200	<250	100
TP10-6-6.5 505103-06	<50	<250	99
TP15-5-5.5 505103-09	660	<250	90
TP12-6-6.5 505103-10	1,000	<250	90
TP11-5-5.5 505103-11	93	<250	87
TP4-6-6.5 505103-12	13,000	<250	105
TP5-6-6.5 505103-13	24,000	410 x	95
TP3-5-5.5 505103-14	6,500	<250	112

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15 and 05/12/15
Date Analyzed: 05/08/15 and 05/12/15

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
TP6-5-5.5 505103-15	4,400	<250	95
TP2-5-5.5 505103-16	11,000	<250	89
TP8-6-6.5 505103-17	6,500	<250	80
TP7-5-5.5 505103-18	12,000	<250	111
TP17-5.5-6.0 505103-20	1,300	<250	90
MW7-5-5.5 505103-22	7,200	<250	101
MW4A-6-6.5 505103-24	15,000	<250	113
TP19-6-6.5 505103-25	440	<250	94
MW5A-6-6.5 505103-26	21,000	330 x	95
TP18-5-5.5 505103-27	3,900	<250	99

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15 and 05/12/15
Date Analyzed: 05/08/15 and 05/12/15

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
TP16-5-5.5 505103-28	4,100	<250	91
Method Blank 05-945 MB	<50	<250	103
Method Blank 05-956 MB	<50	<250	107

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/08/15
Date Analyzed: 05/08/15

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-134)
MW4A-4-14 505103-31	2,400	<250	77
MW1A-4-14 505103-32	88 x	<250	96
MW7-4-14 505103-33	240	<250	92
MW3-4-14 505103-34	250 x	<250	91
MW1A-4-14B 505103-35	90 x	<250	97
Purge Water Waste-050715 505103-36	3,300	<250	86
Method Blank 05-931 MB	<50	<250	84

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/11/15
Date Analyzed: 05/11/15

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

Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 48-168)
MW2-4-14 LNAPL 505103-29 1/200	900,000	<50,000	101
MW5A-4-14 LNAPL 505103-30 1/200	870,000	<50,000	ip
Method Blank 05-949 MB	<50	<250	96

Analysis For Total Metals By EPA Method 6020A

Client ID:	TP1-4-4.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-03
Date Analyzed:	05/12/15	Data File:	505103-03.044
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	12.0

Analysis For Total Metals By EPA Method 6020A

Client ID:	TP10-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-06
Date Analyzed:	05/12/15	Data File:	505103-06.045
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	106	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	3.31

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW4A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-24
Date Analyzed:	05/12/15	Data File:	505103-24.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	2.08

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW5A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-26
Date Analyzed:	05/12/15	Data File:	505103-26.055
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	4.28

Analysis For Total Metals By EPA Method 6020A

Client ID:	TP18-5-5.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-27
Date Analyzed:	05/12/15	Data File:	505103-27.056
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	104	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	5.23

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	NA	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	I5-296 mb
Date Analyzed:	05/12/15	Data File:	I5-296 mb.042
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW4A-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-31
Date Analyzed:	05/12/15	Data File:	505103-31.016
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW1A-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-32
Date Analyzed:	05/12/15	Data File:	505103-32.019
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	96	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW7-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-33
Date Analyzed:	05/12/15	Data File:	505103-33.020
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	94	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW3-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-34
Date Analyzed:	05/12/15	Data File:	505103-34.021
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	94	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW1A-4-14B	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-35
Date Analyzed:	05/12/15	Data File:	505103-35.022
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	Purge Water Waste-050715	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-36
Date Analyzed:	05/12/15	Data File:	505103-36.023
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	98	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	NA	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	I5-295 mb
Date Analyzed:	05/12/15	Data File:	I5-295 mb.014
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	70	130

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW2-4-14 LNAPL	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-29
Date Analyzed:	05/12/15	Data File:	505103-29.057
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	102	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	27.5

Analysis For Total Metals By EPA Method 6020A

Client ID:	MW5A-4-14 LNAPL	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-30
Date Analyzed:	05/12/15	Data File:	505103-30.058
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	105	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Total Metals By EPA Method 6020A

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	NA	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	I5-296 mb
Date Analyzed:	05/12/15	Data File:	I5-296 mb.042
Matrix:	Soil/Product	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	SP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	103	70	130

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP1-4-4.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-03
Date Analyzed:	05/13/15	Data File:	051240.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	109	64	137
4-Bromofluorobenzene	108	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	0.048
Toluene	<0.05
Ethylbenzene	1.4
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	6.9
Hexane	0.45

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP10-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/13/15	Lab ID:	505103-06
Date Analyzed:	05/13/15	Data File:	051309.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	89	113
Toluene-d8	101	64	137
4-Bromofluorobenzene	103	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	0.16
Toluene	<0.05
Ethylbenzene	1.8
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	2.9
Hexane	0.66

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-24
Date Analyzed:	05/13/15	Data File:	051242.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	89	113
Toluene-d8	103	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	0.13
Toluene	<0.05
Ethylbenzene	3.8
m,p-Xylene	8.9
o-Xylene	0.14
Naphthalene	2.7
Hexane	<0.25

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW5A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-26
Date Analyzed:	05/13/15	Data File:	051243.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	89	113
Toluene-d8	108	64	137
4-Bromofluorobenzene	100	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	0.067
Toluene	<0.05
Ethylbenzene	3.9
m,p-Xylene	13
o-Xylene	0.40
Naphthalene	3.8
Hexane	<0.25

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	TP18-5-5.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	505103-27
Date Analyzed:	05/13/15	Data File:	051241.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	89	113
Toluene-d8	110	64	137
4-Bromofluorobenzene	93	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	0.097
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05
Hexane	0.69

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/12/15	Lab ID:	05-0907 mb
Date Analyzed:	05/12/15	Data File:	051221.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	89	113
Toluene-d8	99	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05
Hexane	<0.25

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	TP1-4-4.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	505103-03
Date Analyzed:	05/11/15	Data File:	051119.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	122	50	150
Toluene-d8	392 ip	50	150
4-Bromofluorobenzene	247 ip	50	150

Compounds:	Concentration mg/kg (ppm)
1,2-Dibromoethane (EDB)	<0.005

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	TP10-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	505103-06
Date Analyzed:	05/11/15	Data File:	051115.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	50	150
Toluene-d8	191 ip	50	150
4-Bromofluorobenzene	130	50	150

Compounds:	Concentration mg/kg (ppm)
1,2-Dibromoethane (EDB)	<0.005

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW4A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	505103-24
Date Analyzed:	05/11/15	Data File:	051121.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	133	50	150
Toluene-d8	825 ip	50	150
4-Bromofluorobenzene	1424 ip J	50	150

Compounds:	Concentration mg/kg (ppm)
1,2-Dibromoethane (EDB)	<0.005 J

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	MW5A-6-6.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	505103-26
Date Analyzed:	05/11/15	Data File:	051122.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	142	50	150
Toluene-d8	1022 ip	50	150
4-Bromofluorobenzene	1293 ip J	50	150

Compounds:	Concentration mg/kg (ppm)
1,2-Dibromoethane (EDB)	<0.005 J

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	TP18-5-5.5	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	505103-27
Date Analyzed:	05/11/15	Data File:	051120.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	138	50	150
Toluene-d8	668 vo J	50	150
4-Bromofluorobenzene	2042 vo J	50	150

Compounds:	Concentration mg/kg (ppm) Dry Weight
1,2-Dibromoethane (EDB)	<0.005 J

Analysis For Volatile Compounds By EPA Method 8260C Direct Sparge

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/11/15	Lab ID:	05-0905 mb
Date Analyzed:	05/11/15	Data File:	051112.D
Matrix:	Soil	Instrument:	GCMS7
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	50	150
Toluene-d8	99	50	150
4-Bromofluorobenzene	103	50	150

Compounds:	Concentration mg/kg (ppm)
1,2-Dibromoethane (EDB)	<0.005

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW2-4-14 LNAPL	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-29 1/2000
Date Analyzed:	05/08/15	Data File:	050818.D
Matrix:	Soil/Product	Instrument:	GCMS9
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	100	64	137
4-Bromofluorobenzene	104	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<100,000
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	<60
Toluene	<100
Ethylbenzene	660
m,p-Xylene	220
o-Xylene	<100
Naphthalene	690
Hexane	<500
Butane	<1,000 L
Isooctane	4,600 L

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW5A-4-14 LNAPL	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-30 1/2000
Date Analyzed:	05/08/15	Data File:	050817.D
Matrix:	Soil/Product	Instrument:	GCMS9
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	101	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<100,000
Methyl t-butyl ether (MTBE)	<100
1,2-Dichloroethane (EDC)	<100
1,2-Dibromoethane (EDB)	<100
Benzene	<60
Toluene	<100
Ethylbenzene	210
m,p-Xylene	630
o-Xylene	<100
Naphthalene	210
Hexane	<500
Butane	<1,000 L
Isooctane	<1,000 L

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	05-0901 mb
Date Analyzed:	05/08/15	Data File:	050805.D
Matrix:	Soil/Product	Instrument:	GCMS9
Units:	mg/kg (ppm)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	89	113
Toluene-d8	98	64	137
4-Bromofluorobenzene	102	81	119

Compounds:	Concentration mg/kg (ppm)
Ethanol	<50
Methyl t-butyl ether (MTBE)	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,2-Dibromoethane (EDB)	<0.05
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05
Hexane	<0.25
Butane	<0.5 L
Isooctane	<0.5 L

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4A-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-31
Date Analyzed:	05/08/15	Data File:	050815.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
1,2-Dibromoethane (EDB)	<1
Benzene	1.1
Toluene	<1
Ethylbenzene	6.8
m,p-Xylene	11
o-Xylene	<1
Naphthalene	4.2
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-32
Date Analyzed:	05/08/15	Data File:	050816.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW7-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-33
Date Analyzed:	05/08/15	Data File:	050817.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-4-14	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-34
Date Analyzed:	05/08/15	Data File:	050818.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14B	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-35
Date Analyzed:	05/08/15	Data File:	050819.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Purge Water Waste-050715	Client:	Floyd-Snider
Date Received:	05/07/15	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	505103-36
Date Analyzed:	05/08/15	Data File:	050820.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	2.9
Toluene	2.2
Ethylbenzene	19
m,p-Xylene	31
o-Xylene	2.6
Naphthalene	11
Hexane	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 505103
Date Extracted:	05/08/15	Lab ID:	05-0902 mb
Date Analyzed:	05/08/15	Data File:	050807.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	100	60	133

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
Methyl t-butyl ether (MTBE)	<1
1,2-Dichloroethane (EDC)	<1
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1
Hexane	<1

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103
Date Extracted: 05/11/15
Date Analyzed: 05/11/15

RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR 1,2-DIBROMOETHANE BY EPA METHOD 8011 MODIFIED
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	EDB
MW4A-4-14 505103-31	<0.01
MW1A-4-14 505103-32	<0.01
MW7-4-14 505103-33	<0.01
MW3-4-14 505103-34	<0.01
MW1A-4-14B 505103-35	<0.01
Purge Water Waste-050715 505103-36	<0.01
Method Blank	<0.01

EDB 1,2-Dibromoethane

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 504473-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	mg/kg (ppm)	20	139	118 b	187 b	50-150	45 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	100	71-131

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	ug/L (ppb)	1,000	103	102	69-134	1

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 504473-03 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	mg/kg (ppm)	20	139	118 b	187 b	50-150	45 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	100	71-131

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505195-14 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	86	66-121
Toluene	mg/kg (ppm)	0.5	86	72-128
Ethylbenzene	mg/kg (ppm)	0.5	87	69-132
Xylenes	mg/kg (ppm)	1.5	87	69-131
Gasoline	mg/kg (ppm)	20	85	61-153

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	93	104	73-135	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	91	74-139

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505160-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	106	64-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	99	58-147

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	90	92	58-134	2

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 505139-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	88	95	73-135	8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	100	74-139

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR TOTAL METALS USING EPA METHOD 6020A

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	2.75	99	99	75-125	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	104	80-120

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL/PRODUCT SAMPLES FOR TOTAL METALS USING EPA METHOD 6020A

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	2.75	99	99	75-125	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	104	80-120

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020A

Laboratory Code: 505103-31 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	95	94	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	100	80-120

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260C DIRECT SPARGE

Laboratory Code: 505103-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.05	<0.005	93	89	50-150	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
1,2-Dibromoethane (EDB)	mg/kg (ppm)	0.05	105	107	70-130	2

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505103-06 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet wt)	Duplicate Result (Wet wt)	RPD (Limit 20)
Ethanol	mg/kg (ppm)	<50	<50	nm
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	<0.05	<0.05	nm
1,2-Dichloroethane (EDC)	mg/kg (ppm)	<0.05	<0.05	nm
Benzene	mg/kg (ppm)	0.13	0.18	32 a
Toluene	mg/kg (ppm)	<0.05	<0.05	nm
Ethylbenzene	mg/kg (ppm)	1.5	1.7	12
m,p-Xylene	mg/kg (ppm)	<0.1	<0.1	nm
o-Xylene	mg/kg (ppm)	<0.05	<0.05	nm
Naphthalene	mg/kg (ppm)	2.4	2.6	8
Hexane	mg/kg (ppm)	0.55	0.37	39 a

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	118	102	51-164	15
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	98	97	72-122	1
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	96	93	73-111	3
Benzene	mg/kg (ppm)	2.5	97	96	72-106	1
Toluene	mg/kg (ppm)	2.5	96	97	74-111	1
Ethylbenzene	mg/kg (ppm)	2.5	99	98	75-112	1
m,p-Xylene	mg/kg (ppm)	5	103	103	77-115	0
o-Xylene	mg/kg (ppm)	2.5	104	103	76-115	1
Naphthalene	mg/kg (ppm)	2.5	102	102	73-122	0
Hexane	mg/kg (ppm)	2.5	93	93	55-107	0

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505022-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	mg/kg (ppm)	125	<50	104	88	27-130	17
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	78	75	17-134	4
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	70	69	22-124	1
Benzene	mg/kg (ppm)	2.5	<0.03	63	62	26-114	2
Toluene	mg/kg (ppm)	2.5	<0.05	63	64	34-112	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	73	73	32-126	0
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	64	63	34-115	2
m,p-Xylene	mg/kg (ppm)	5	0.081	65	64	25-125	2
o-Xylene	mg/kg (ppm)	2.5	<0.05	68	67	27-126	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	89	83	24-139	7
Hexane	mg/kg (ppm)	2.5	<0.25	32	32	10-95	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Ethanol	mg/kg (ppm)	125	110	51-164
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	92	72-122
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	85	73-111
Benzene	mg/kg (ppm)	2.5	89	72-106
Toluene	mg/kg (ppm)	2.5	90	74-111
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	92	77-117
Ethylbenzene	mg/kg (ppm)	2.5	92	75-112
m,p-Xylene	mg/kg (ppm)	5	95	77-115
o-Xylene	mg/kg (ppm)	2.5	98	76-115
Naphthalene	mg/kg (ppm)	2.5	105	73-122
Hexane	mg/kg (ppm)	2.5	88	55-107

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

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

Laboratory Code: 505113-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Ethanol	ug/L (ppb)	2,500	<1,000	101	14-163
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	98	74-127
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	96	69-133
Benzene	ug/L (ppb)	50	<0.35	96	76-125
Toluene	ug/L (ppb)	50	<1	96	76-122
Ethylbenzene	ug/L (ppb)	50	<1	96	69-135
m,p-Xylene	ug/L (ppb)	100	<2	97	69-135
o-Xylene	ug/L (ppb)	50	<1	98	60-140
Naphthalene	ug/L (ppb)	50	<1	108	44-164
Hexane	ug/L (ppb)	50	<1	105	52-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Ethanol	ug/L (ppb)	2,500	116	104	28-187	11
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	101	99	64-147	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	98	96	73-132	2
Benzene	ug/L (ppb)	50	97	96	69-134	1
Toluene	ug/L (ppb)	50	98	97	72-122	1
Ethylbenzene	ug/L (ppb)	50	98	98	77-124	0
m,p-Xylene	ug/L (ppb)	100	100	99	83-125	1
o-Xylene	ug/L (ppb)	50	101	100	81-121	1
Naphthalene	ug/L (ppb)	50	111	107	64-133	4
Hexane	ug/L (ppb)	50	113	112	57-137	1

Date of Report: 05/19/15
Date Received: 05/07/15
Project: CL-Ellensburg, F&BI 505103

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR 1,2-DIBROMOETHANE BY EPA METHOD 8011 MODIFIED

Laboratory Code: 505103-31 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 10)
1,2-Dibromoethane	ug/L (ppb)	<0.01	<0.01	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1,2-Dibromoethane	ug/L (ppb)	0.10	94	70-130

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

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

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

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

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

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

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

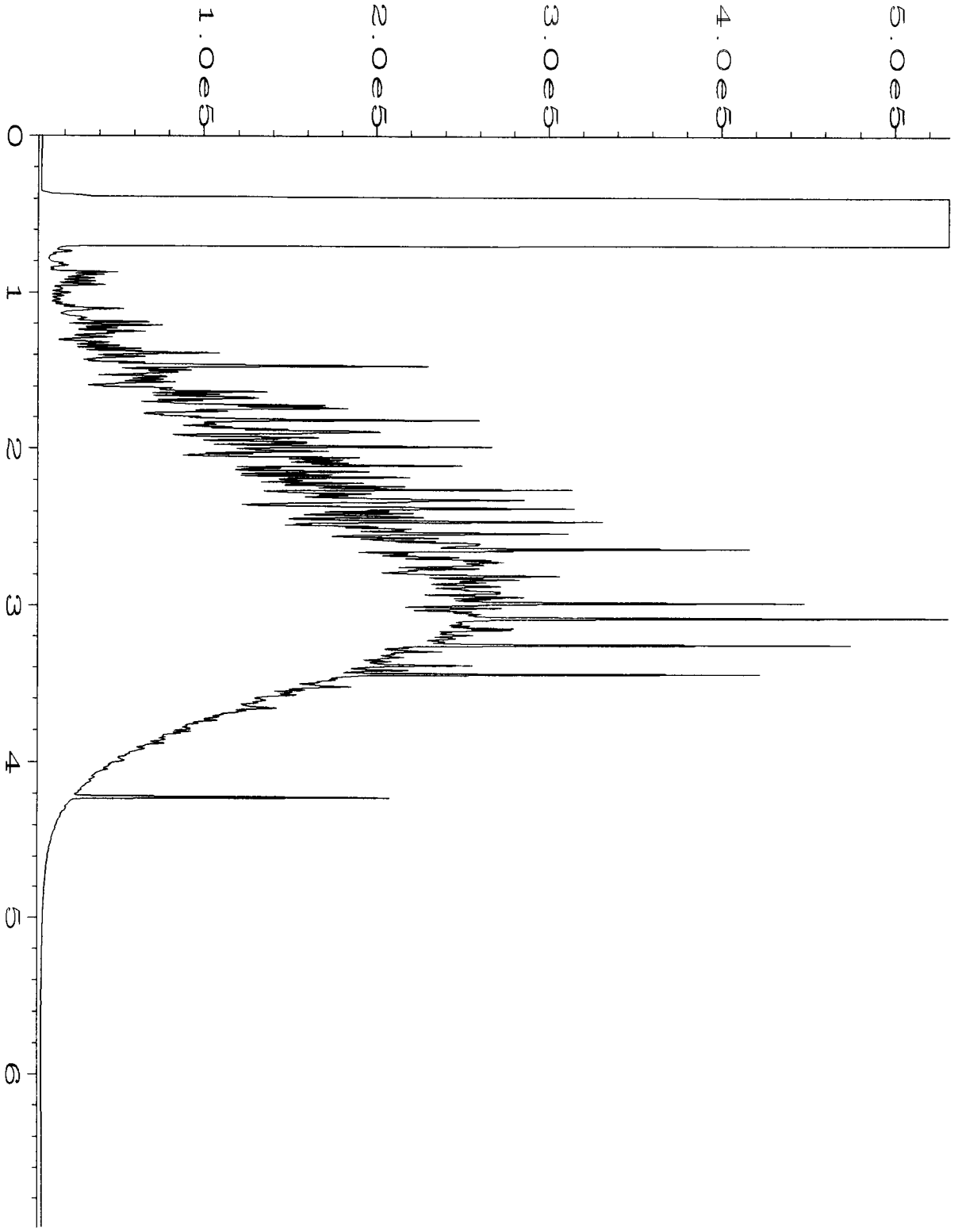
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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

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

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

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



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Instrument	: GC #6	Vial Number	: 23
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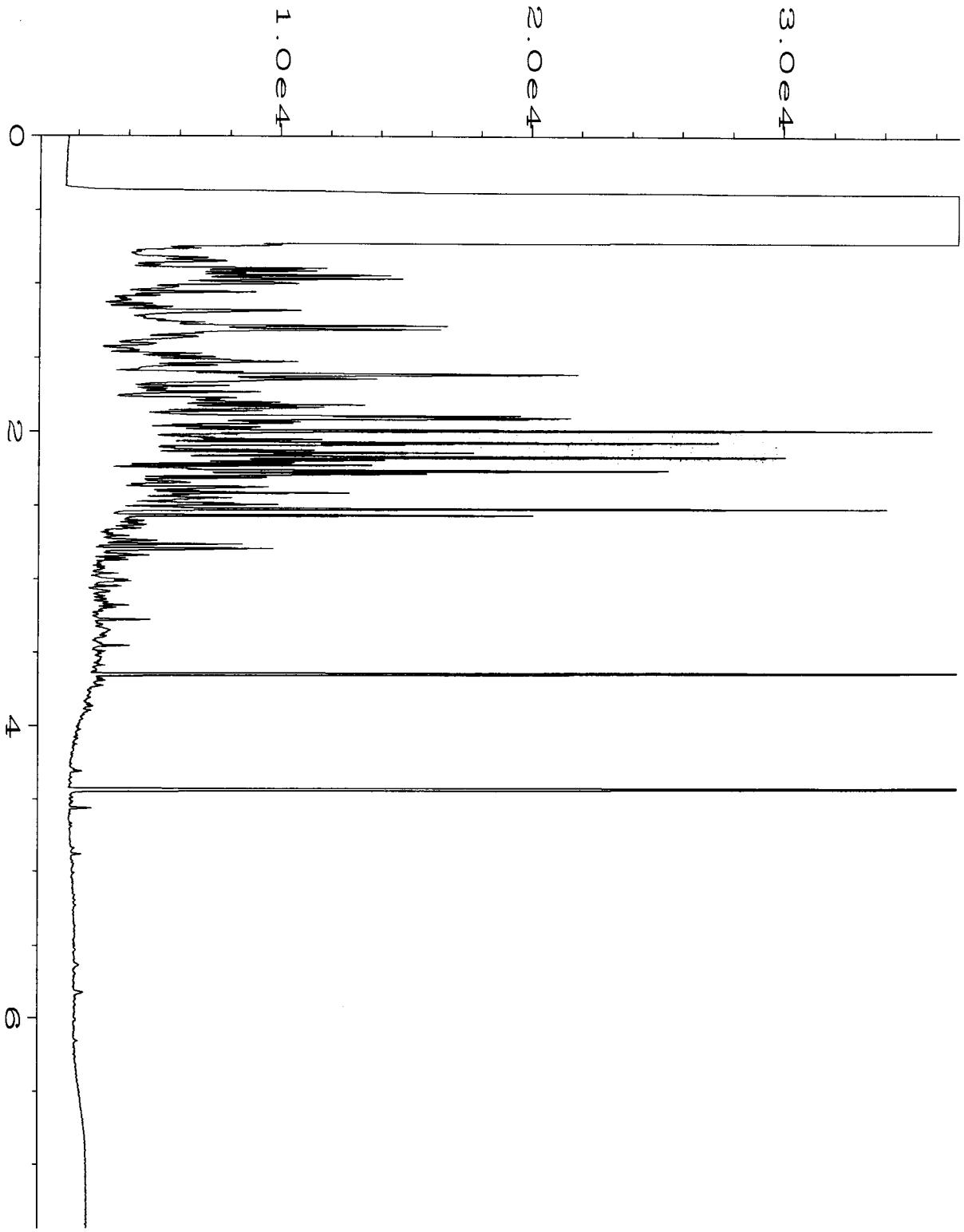
Report Created on	: 13 May 15 10:05 AM	Analysis Method	: BAKEOUT.MTH



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Sample Name	: 505103-03	Injection Number	: 1
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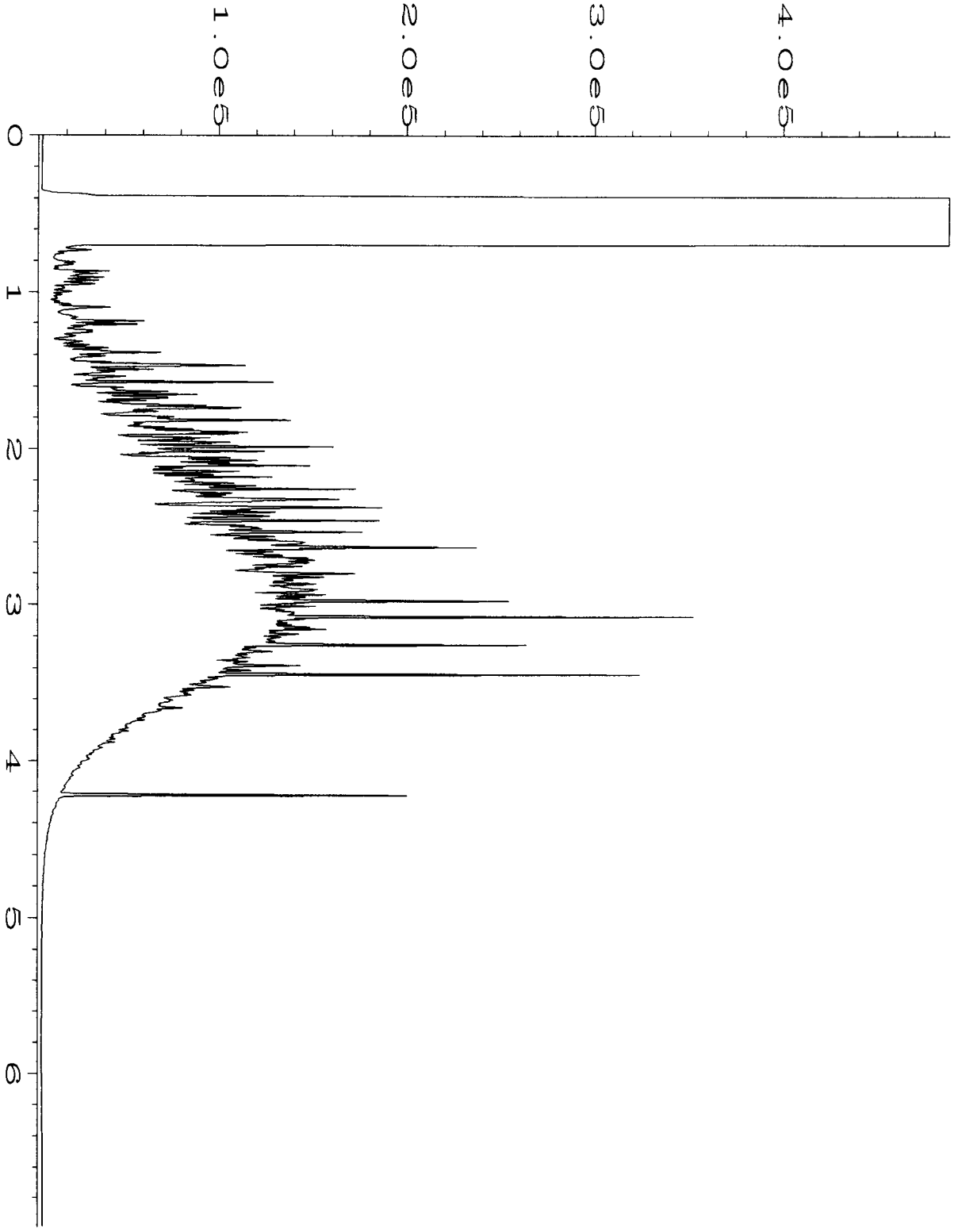
Report Created on	: 11 May 15 10:30 AM	Analysis Method	: DX.MTH



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Instrument	: GC #6	Vial Number	: 24
Sample Name	: 505103-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
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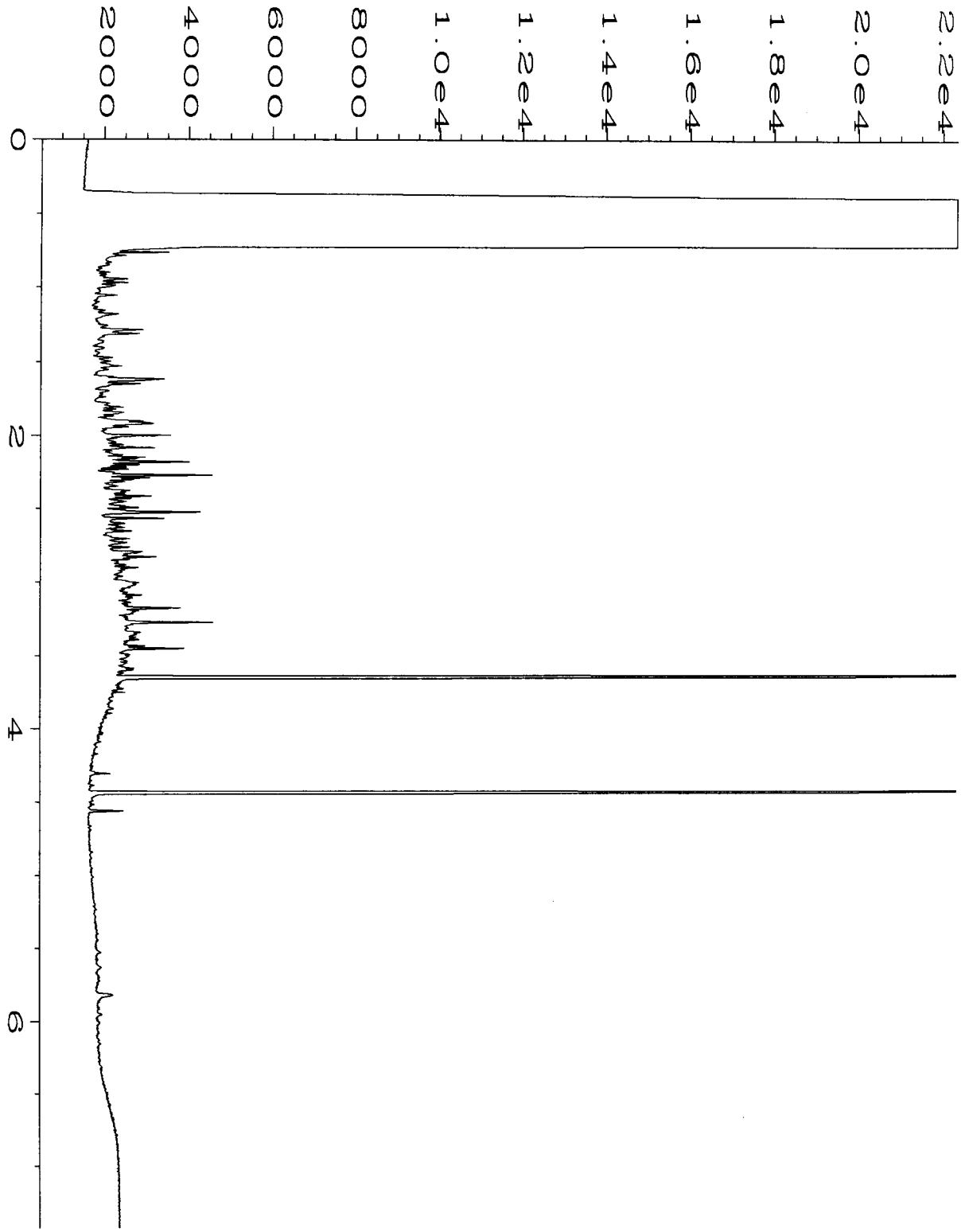

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Sample Name	: 505103-06	Injection Number	: 1
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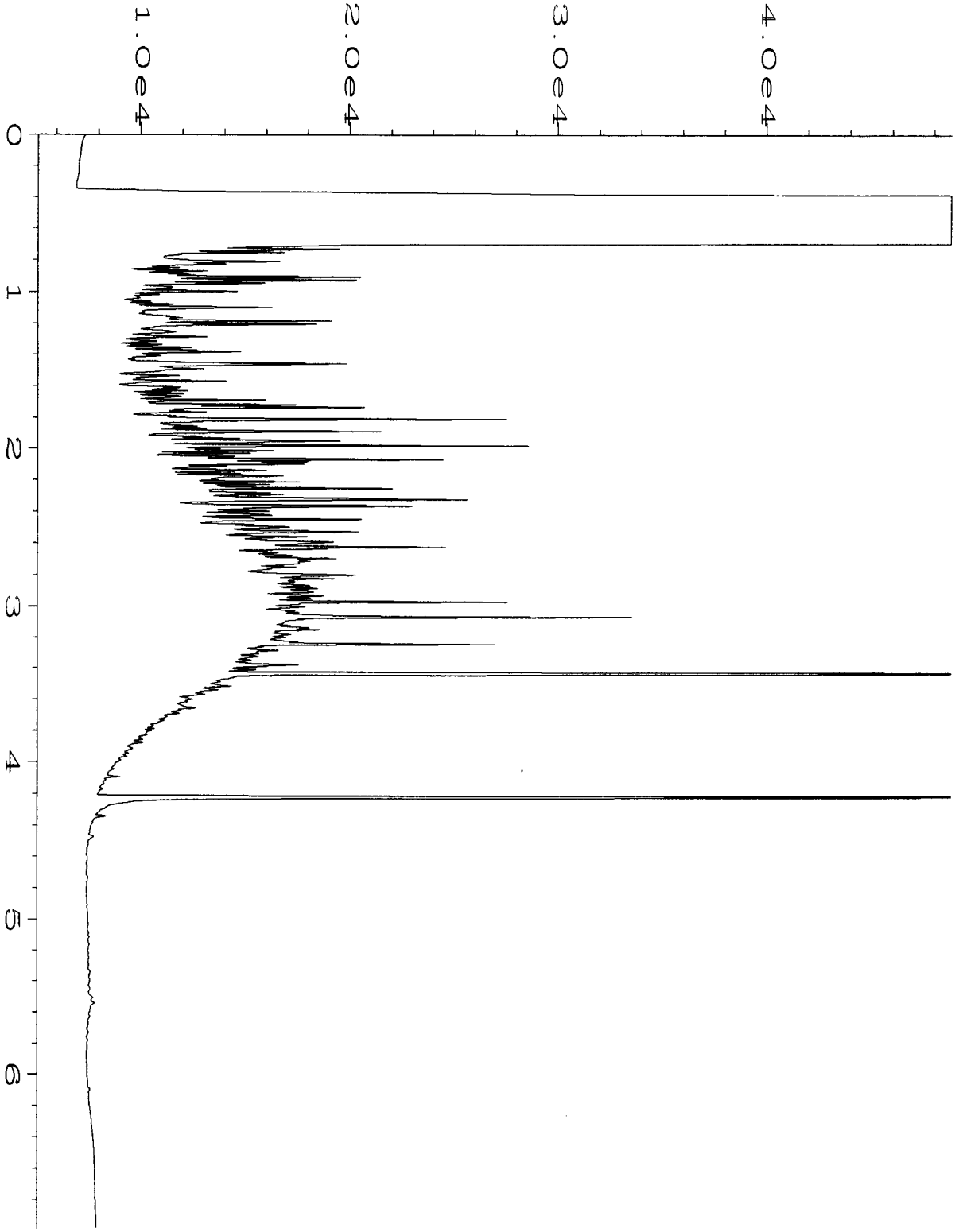

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Sample Name	: 505103-09	Injection Number	: 1
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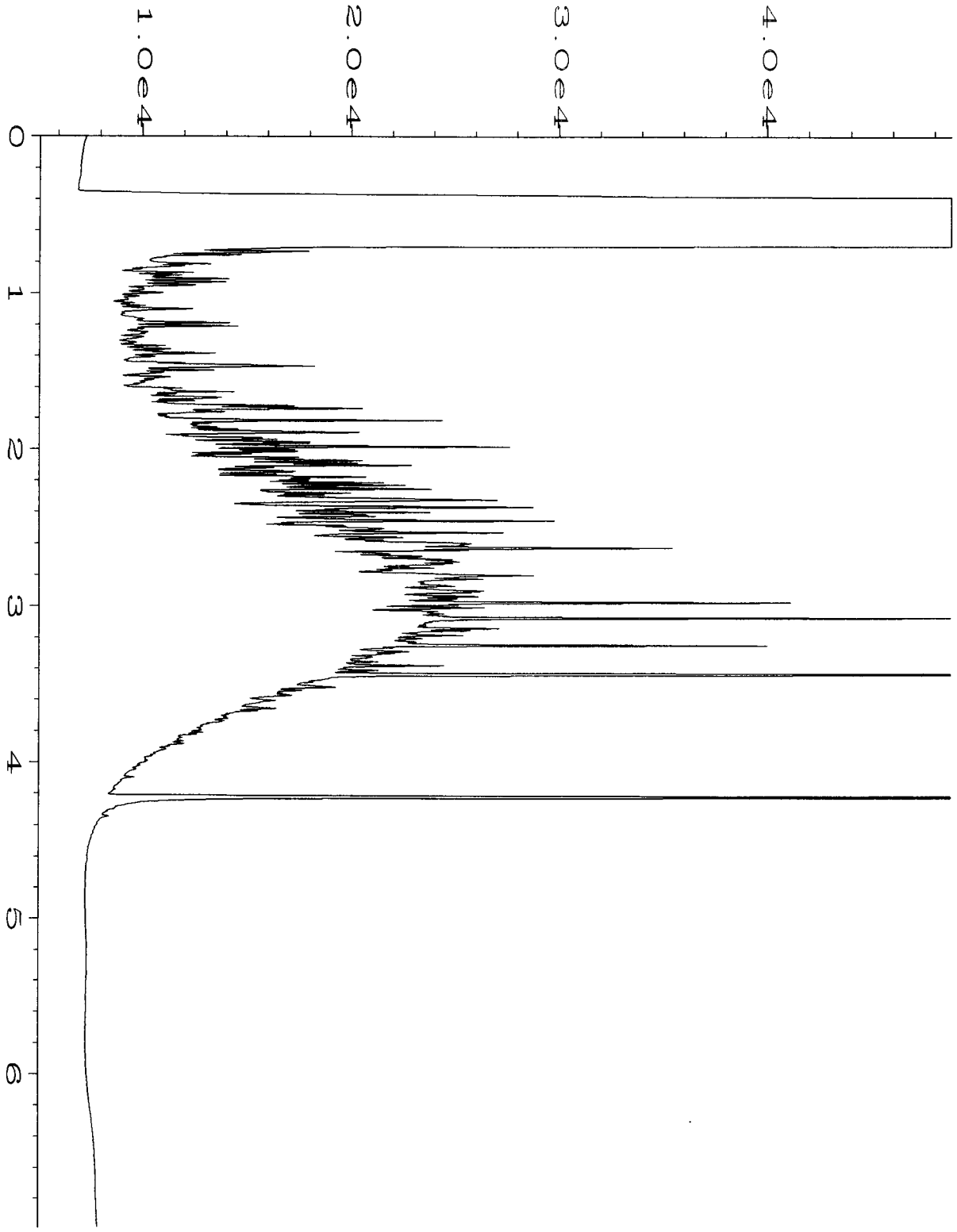

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Sample Name	: 505103-10	Injection Number	: 1
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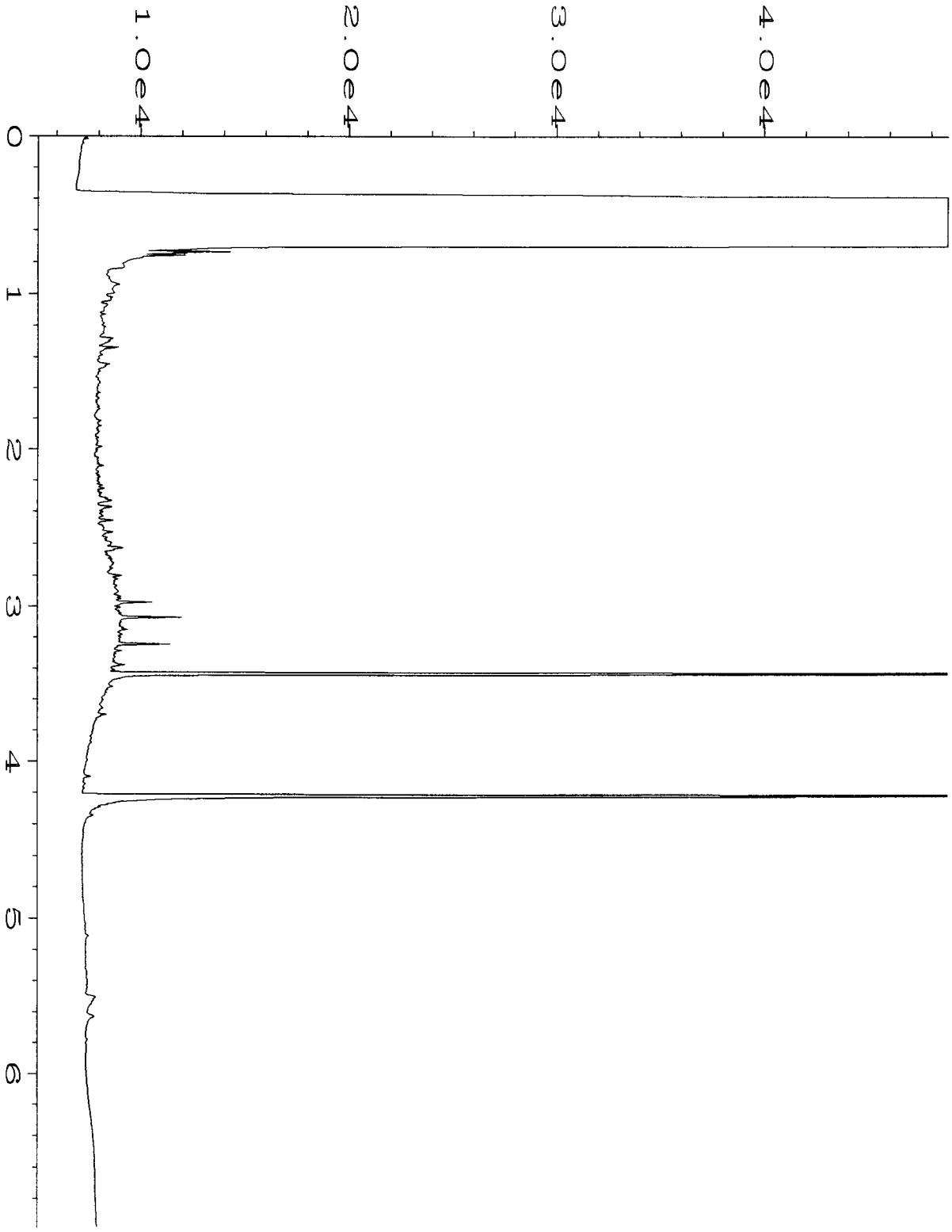

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Operator : mwdl
Instrument : GC #6
Sample Name : 505103-11
Run Time Bar Code:
Acquired on : 12 May 15 05:23 PM
Report Created on: 13 May 15 10:06 AM

Page Number : 1
Vial Number : 27
Injection Number : 1
Sequence Line : 7
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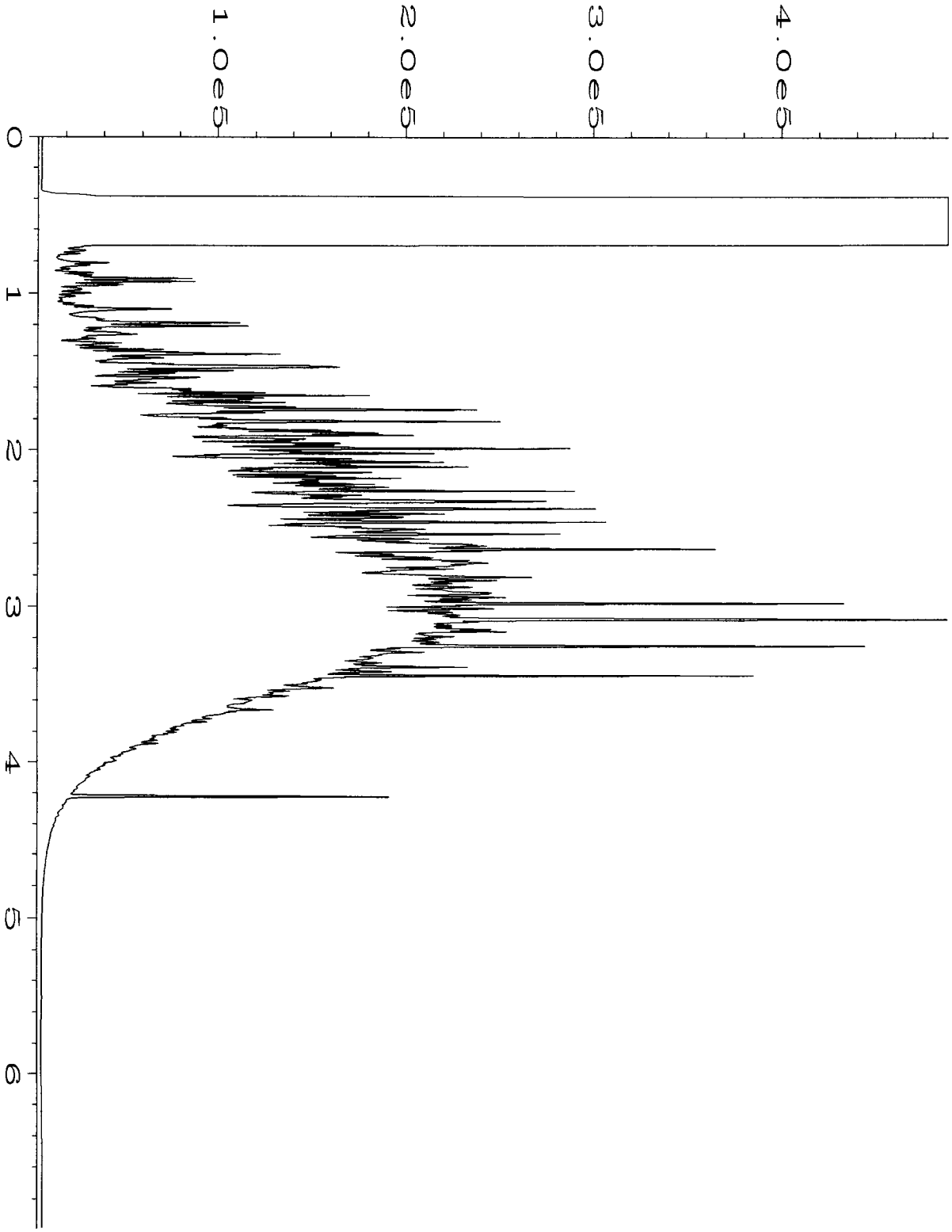
Analysis Method : BAKEOUT.MTH



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Sample Name	: 505103-12	Injection Number	: 1
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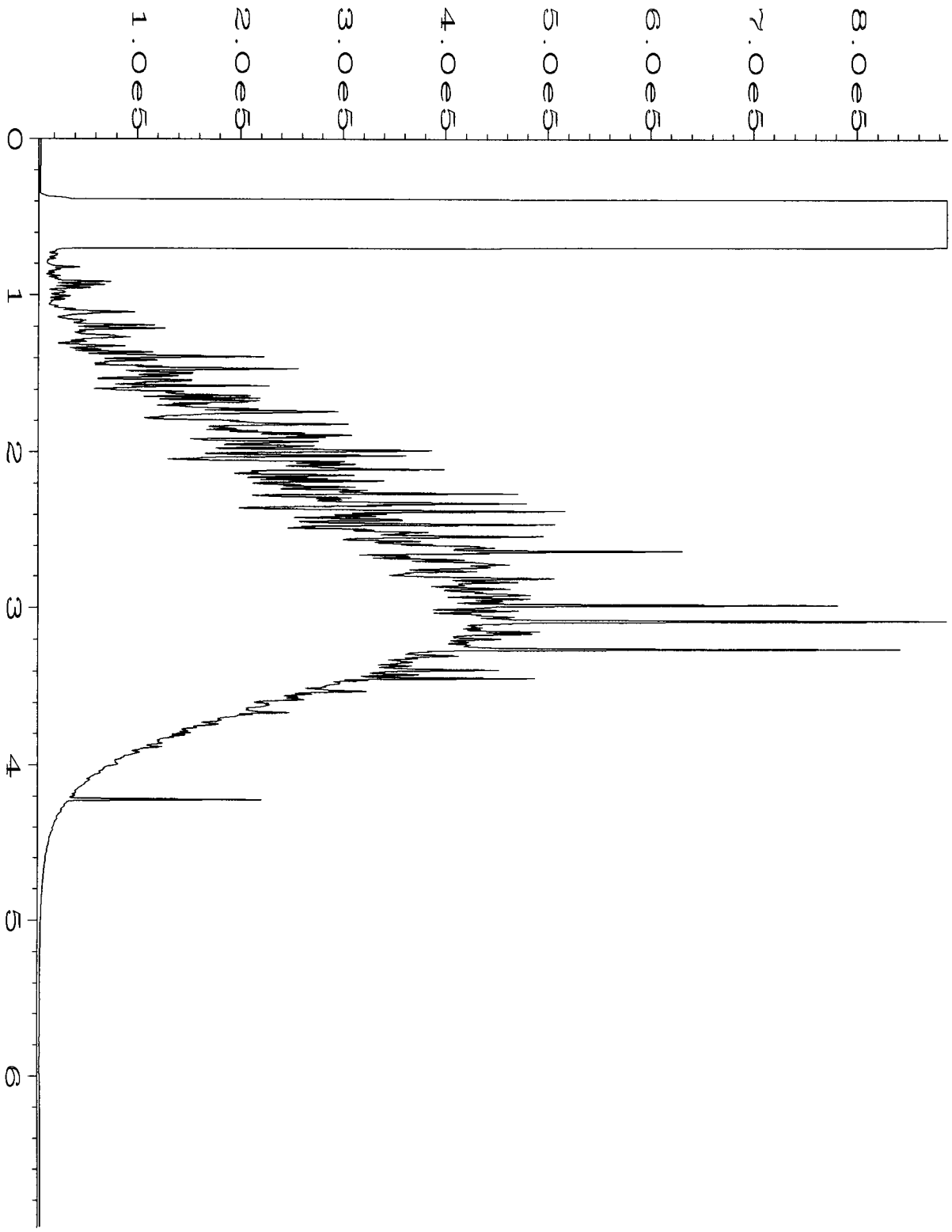

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Instrument : GC #6
Sample Name : 505103-13
Run Time Bar Code:
Acquired on : 12 May 15 05:45 PM
Report Created on: 13 May 15 10:06 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
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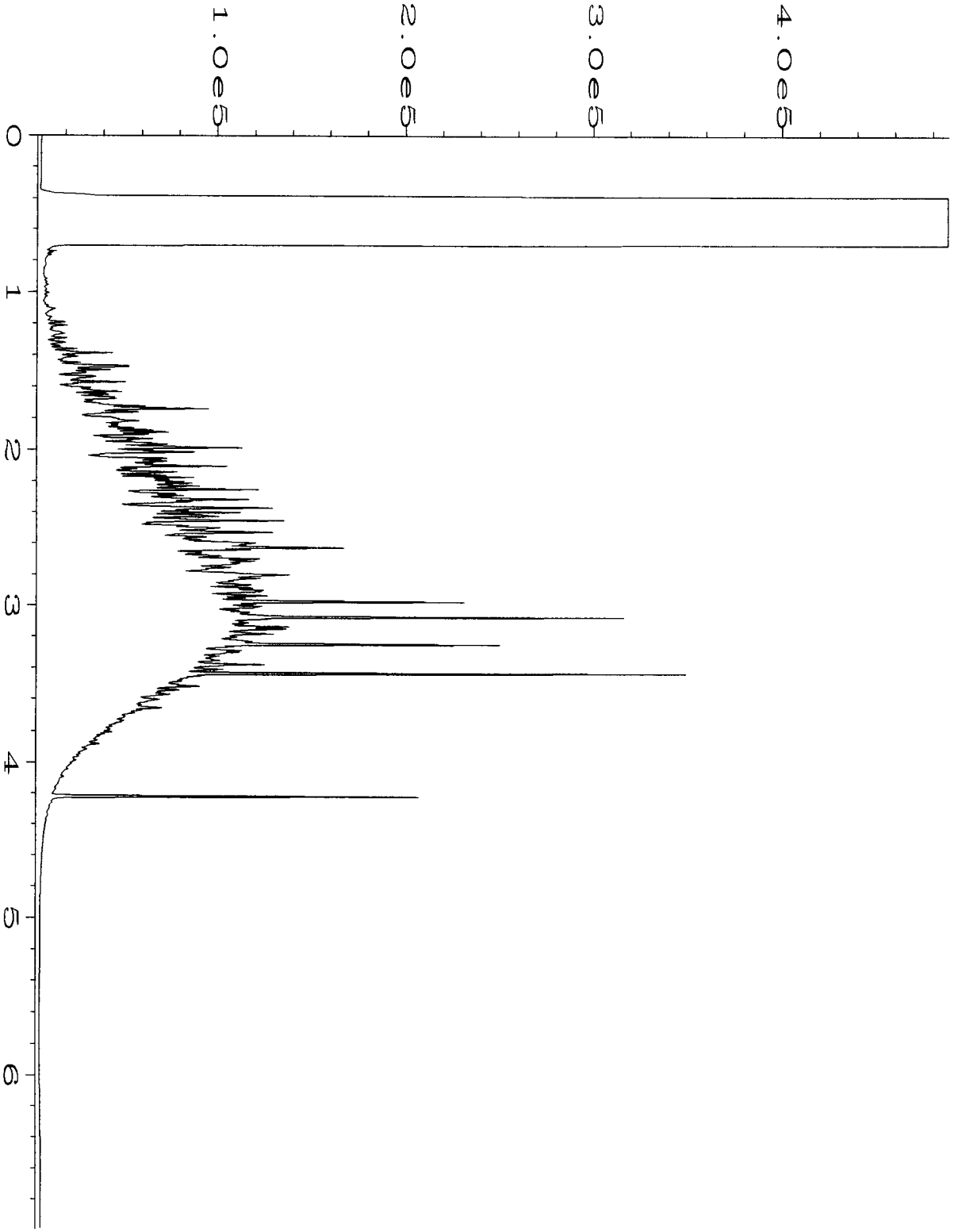
Analysis Method : BAKEOUT.MTH



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Sample Name	: 505103-14	Injection Number	: 1
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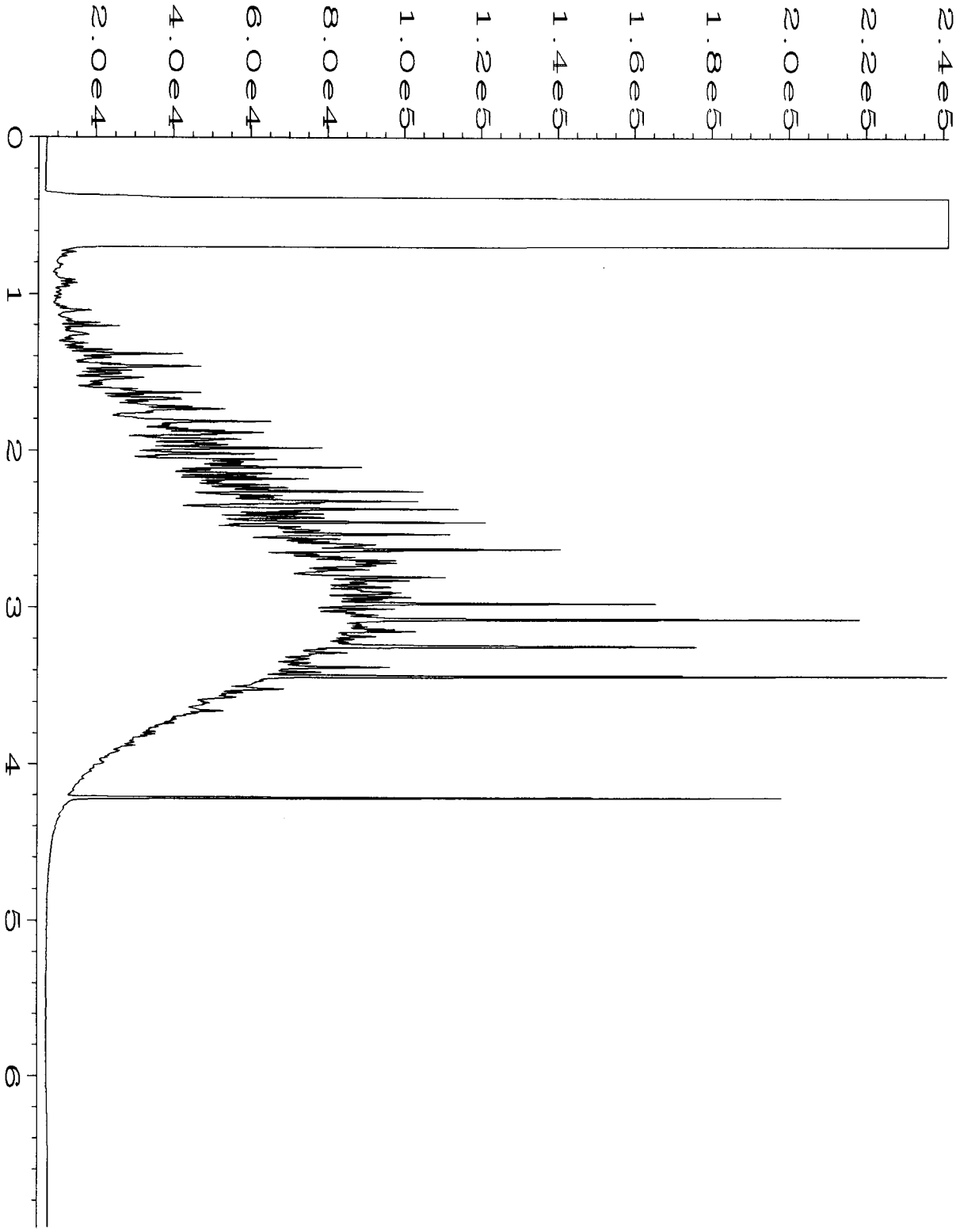

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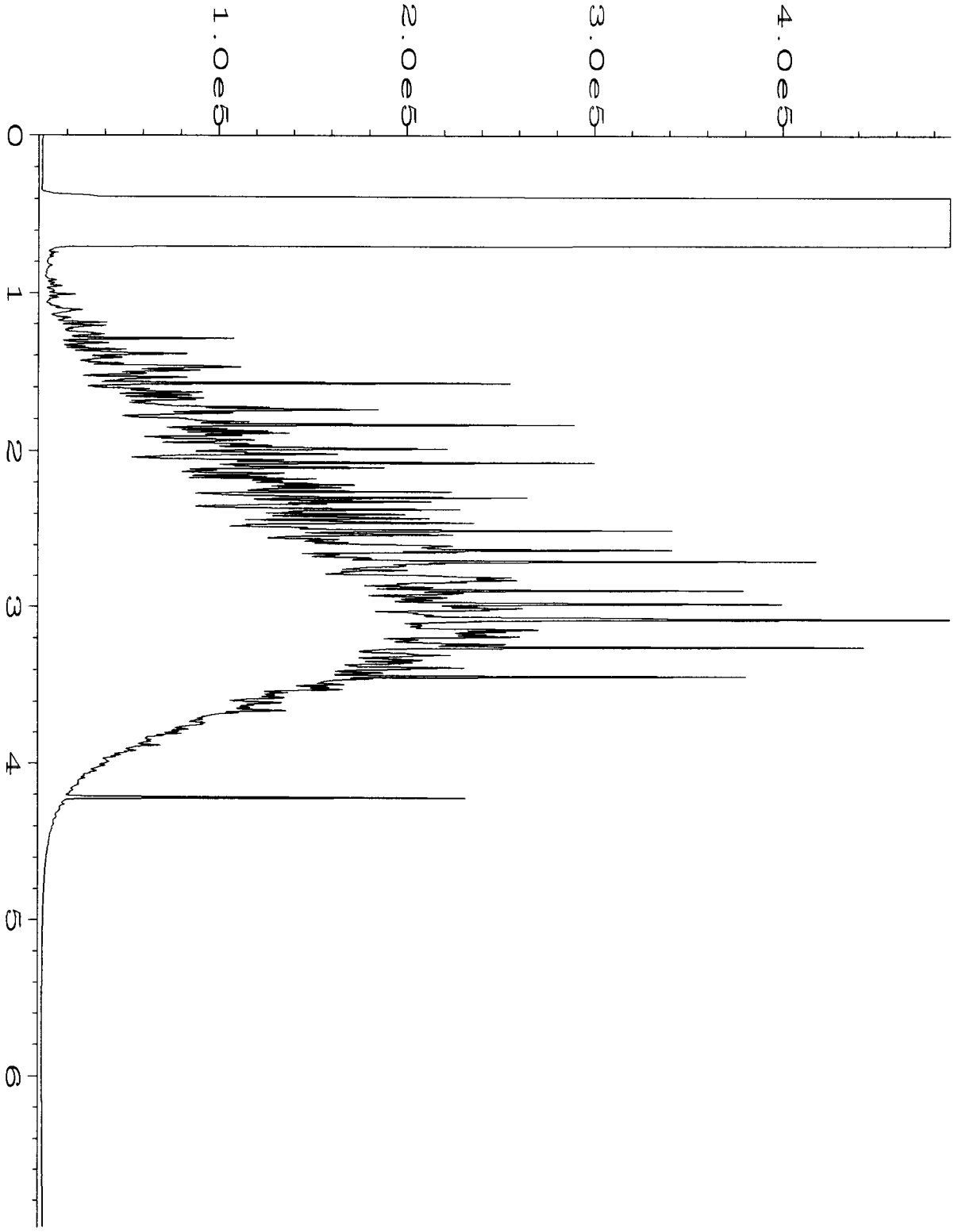
Run Time Bar Code:
Acquired on : 12 May 15 06:29 PM
Report Created on: 13 May 15 10:06 AM

Page Number : 1
Vial Number : 31
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : BAKEOUT.MTH



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Instrument	: GC #6	Vial Number	: 32
Sample Name	: 505103-16	Injection Number	: 1
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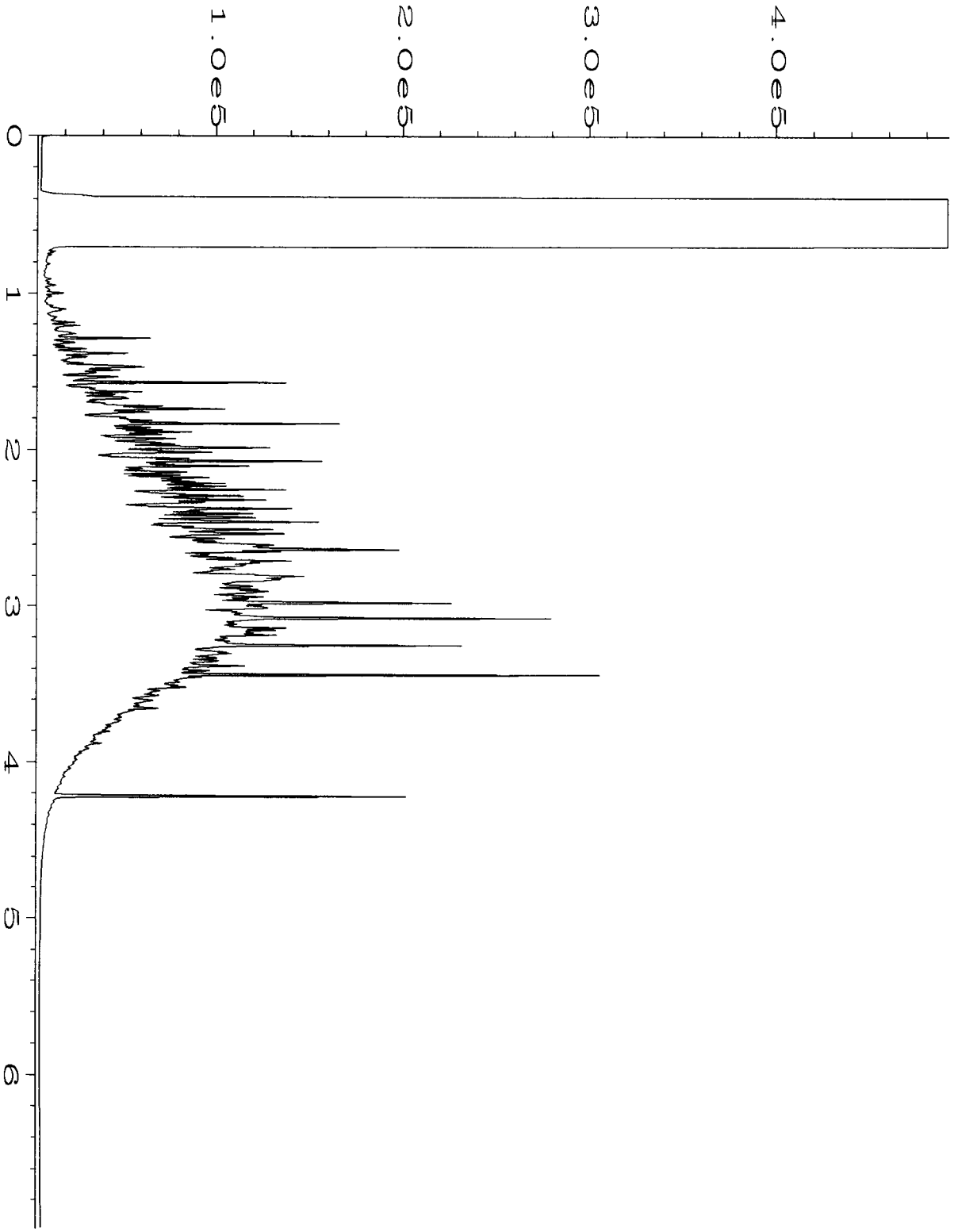

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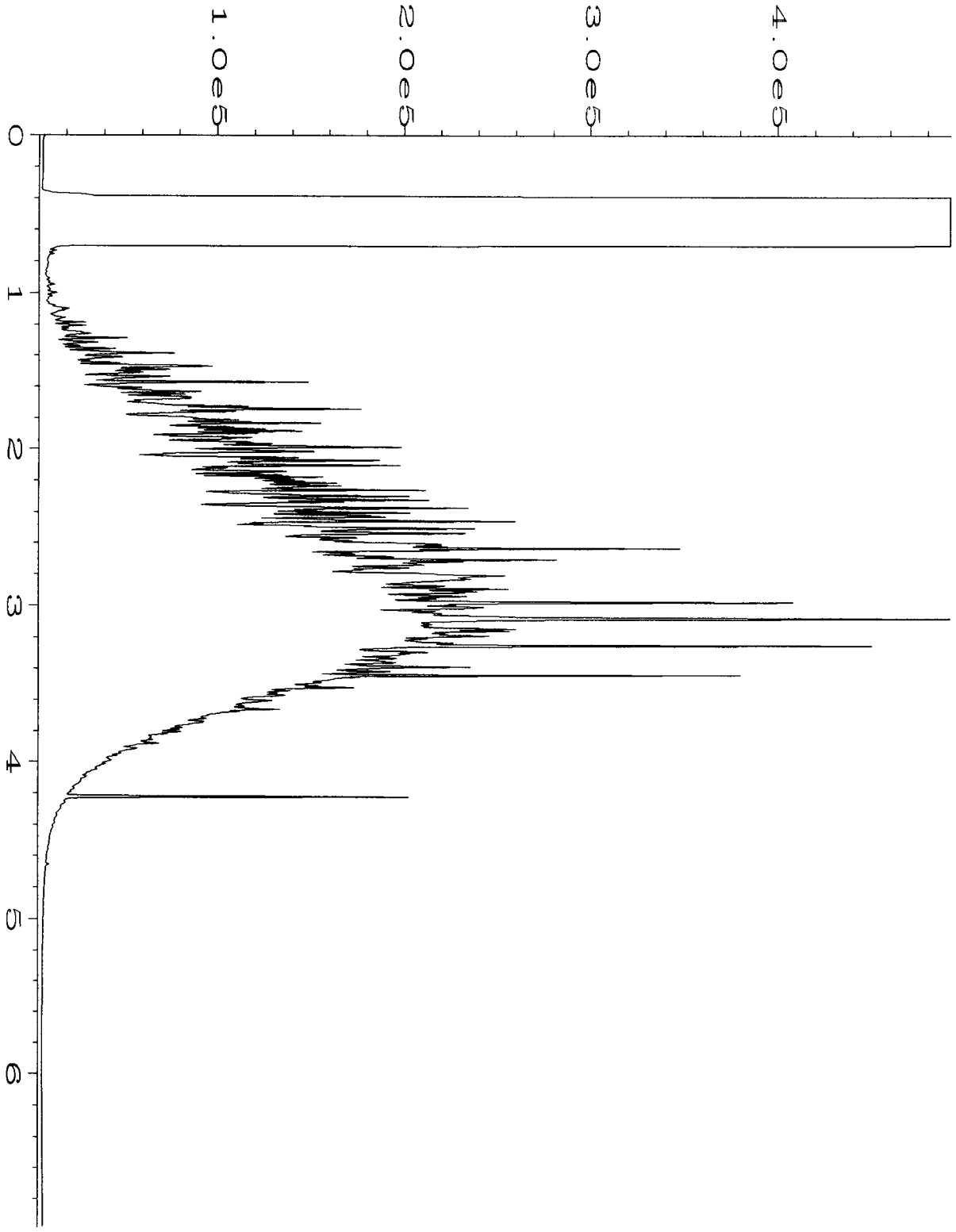

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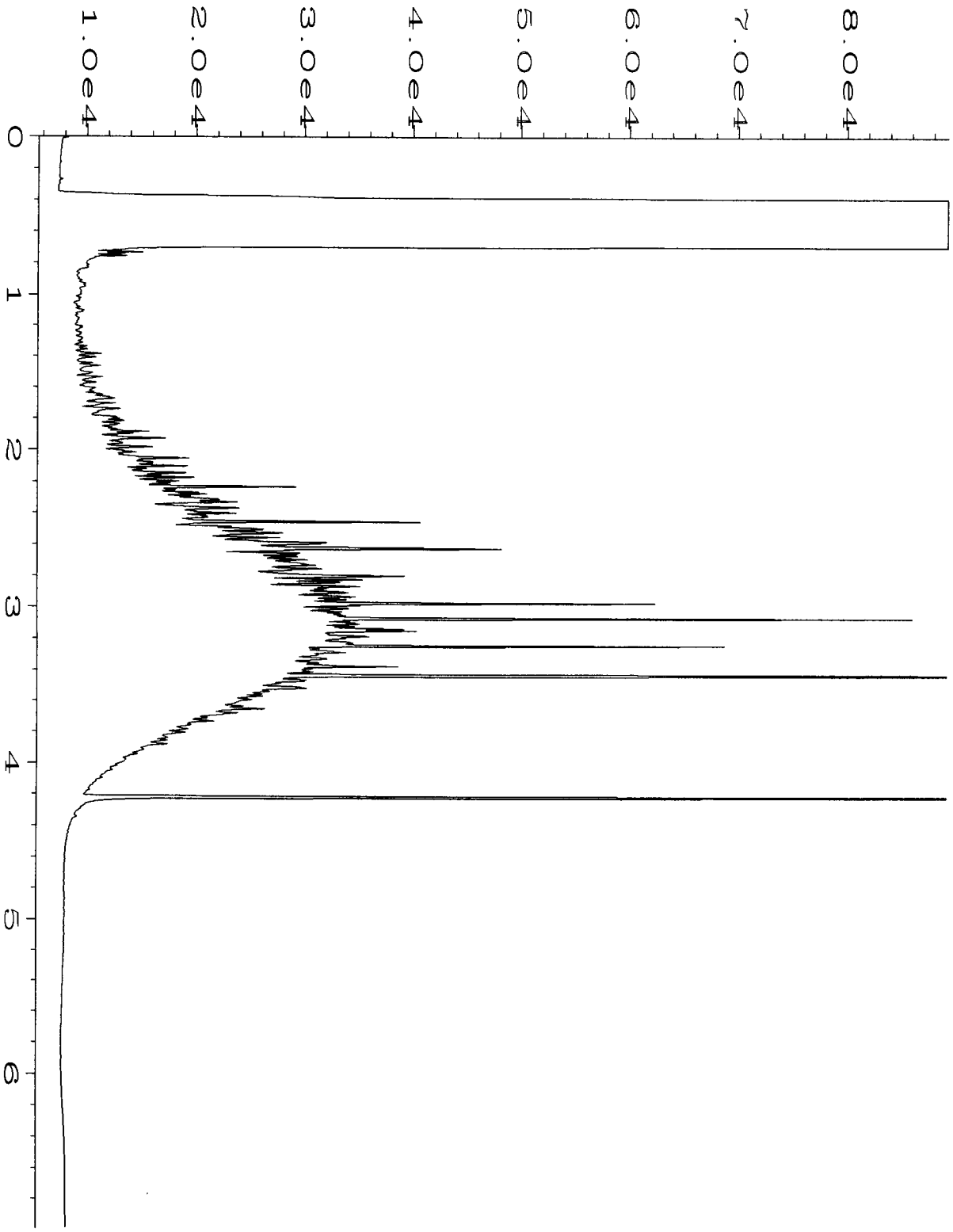
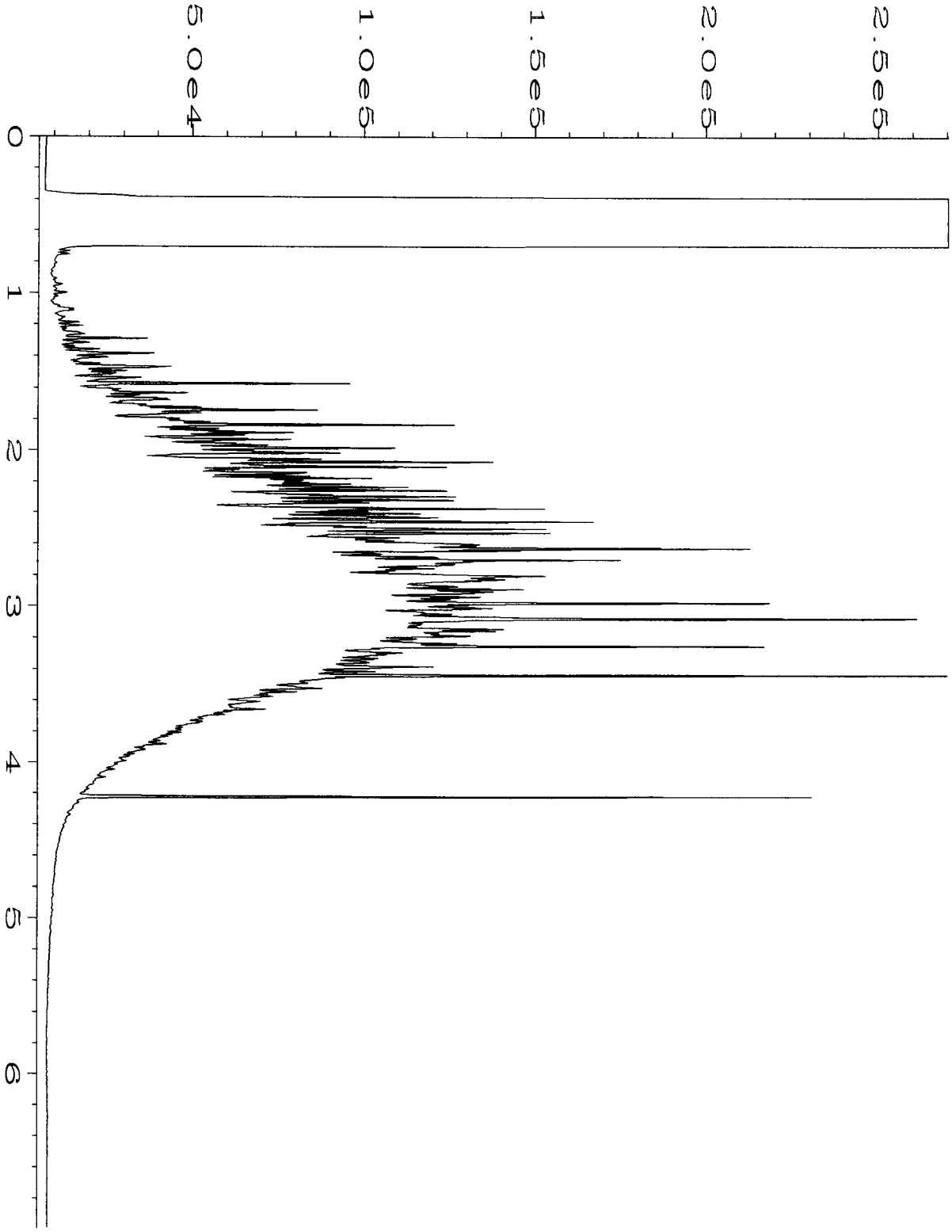
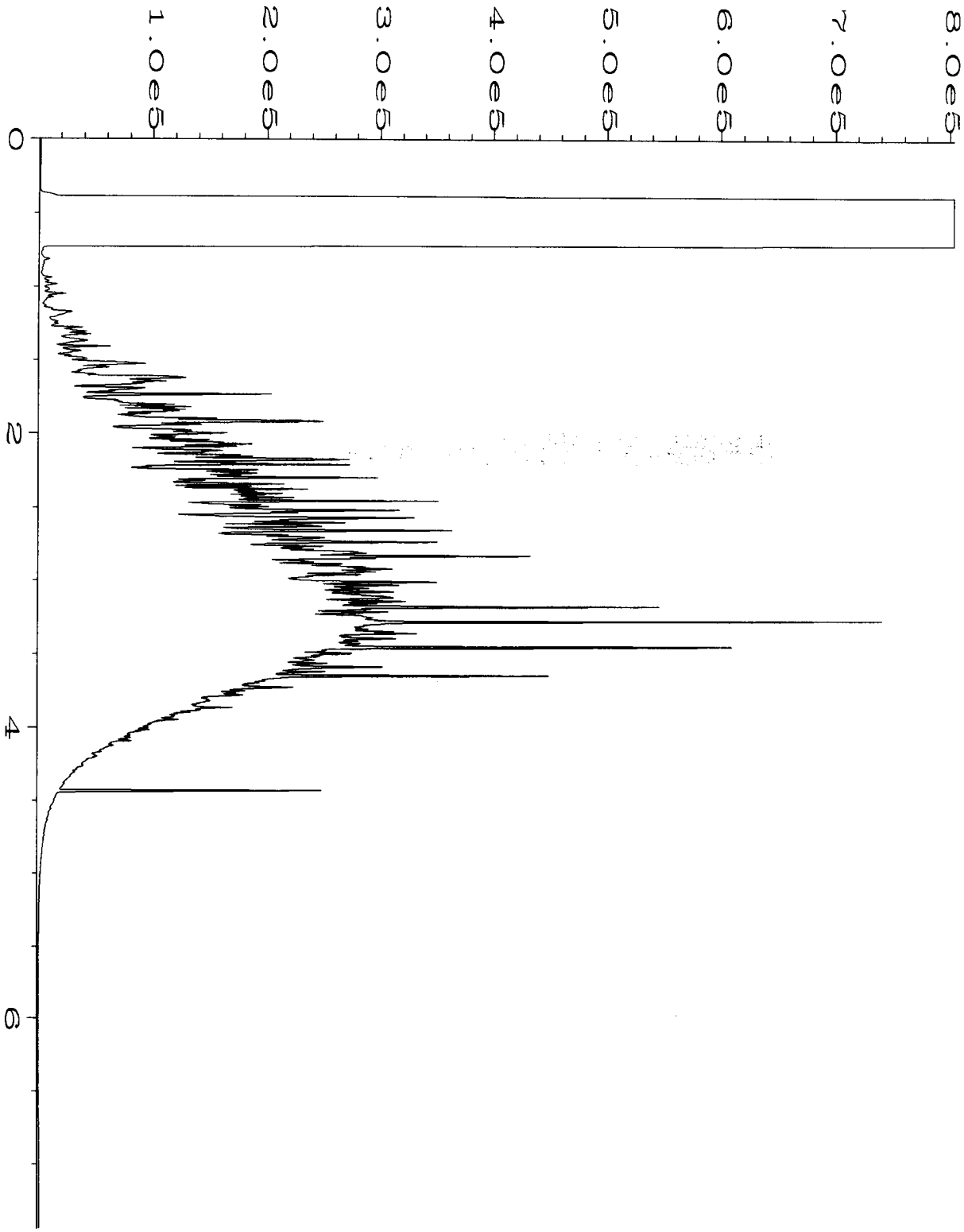
Acquired on	: 12 May 15 07:02 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



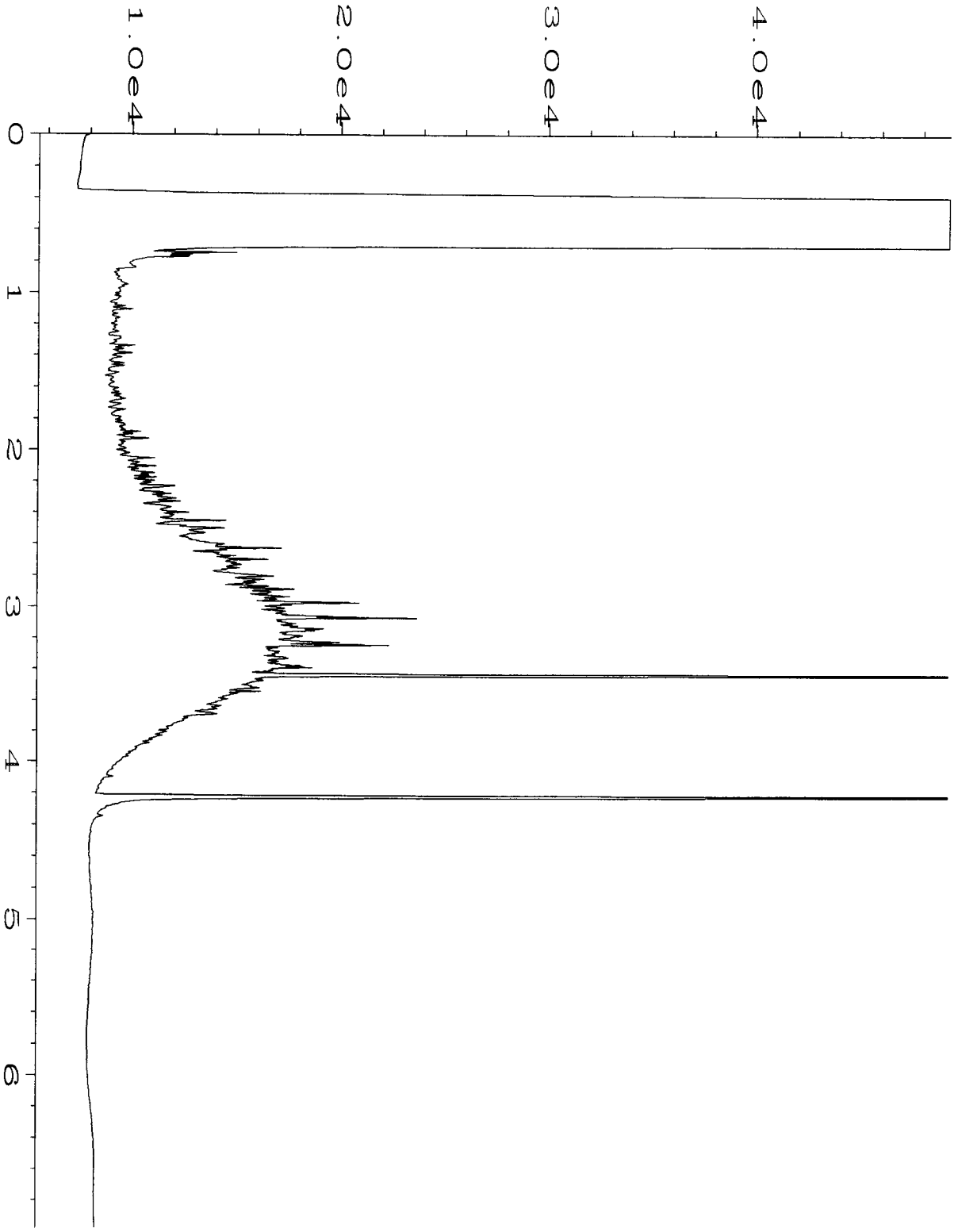
Data File Name	: C:\HPCHEM\6\DATA\05-12-15\035F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 35
Sample Name	: 505103-20	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 12 May 15 07:13 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



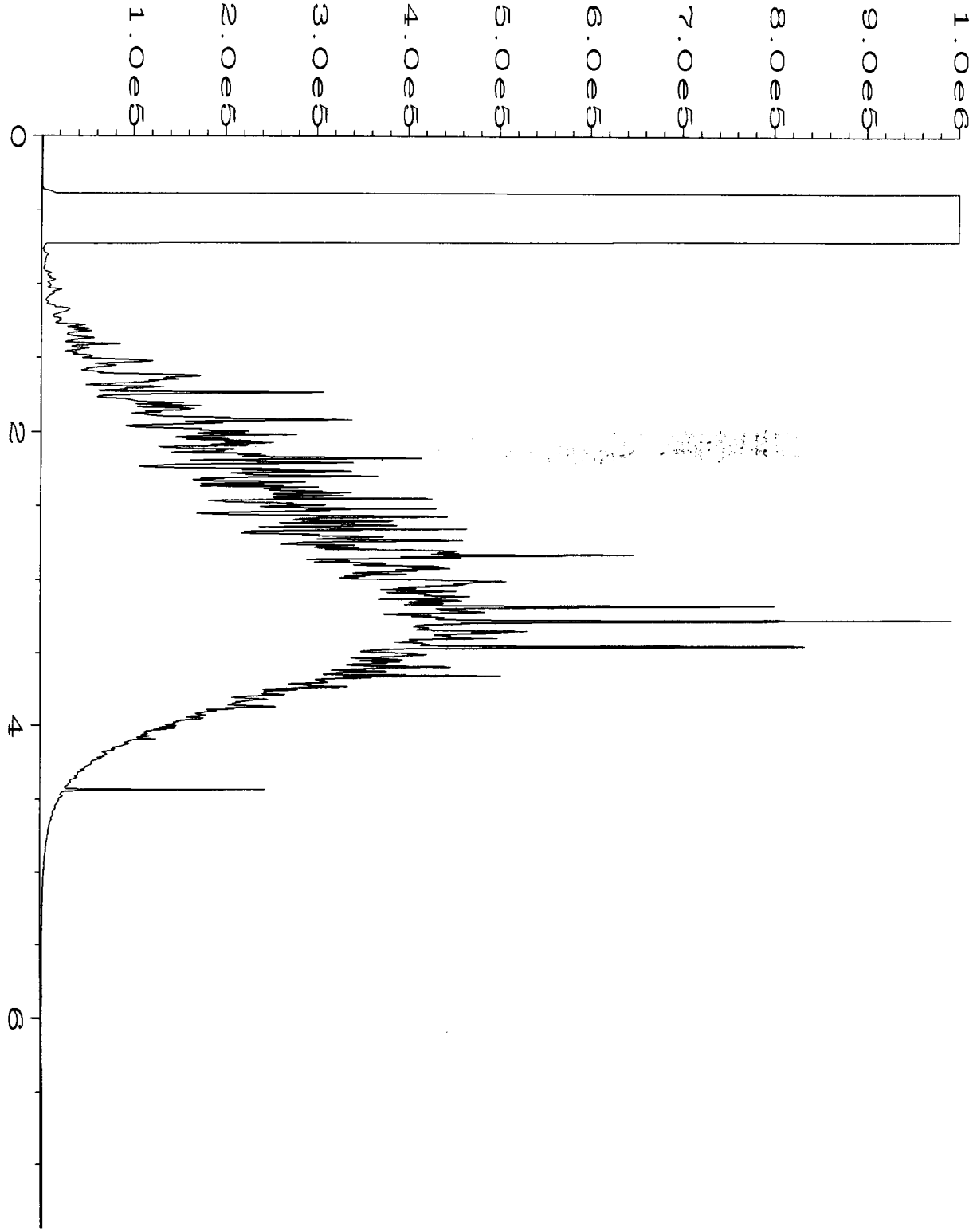
Data File Name	: C:\HPCHEM\6\DATA\05-12-15\036F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 36
Sample Name	: 505103-22	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 12 May 15 07:24 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



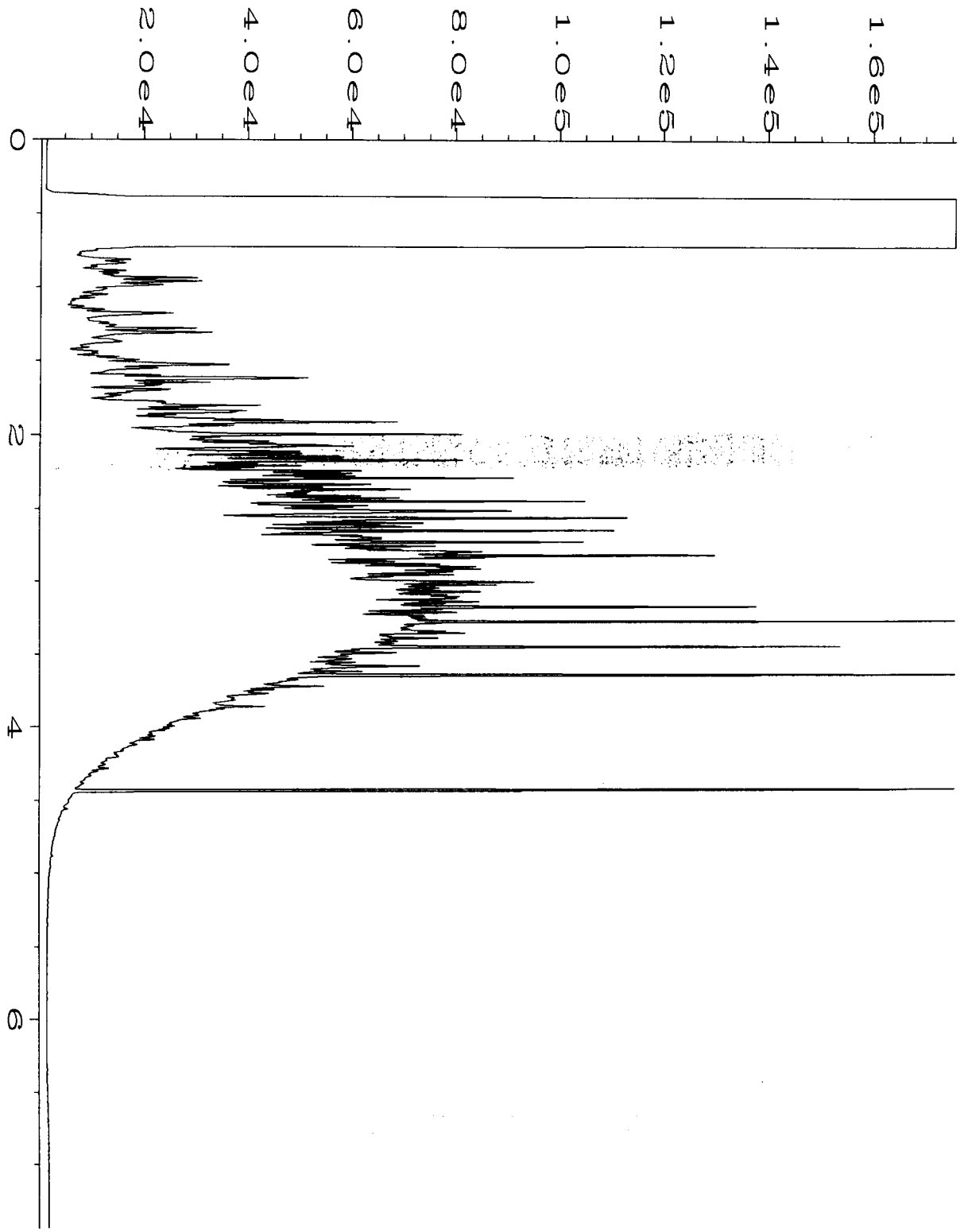
Data File Name	: C:\HPCHEM\4\DATA\05-08-15\023F0601.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 23
Sample Name	: 505103-24	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 08 May 15 04:09 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 10:30 AM	Analysis Method	: DX.MTH



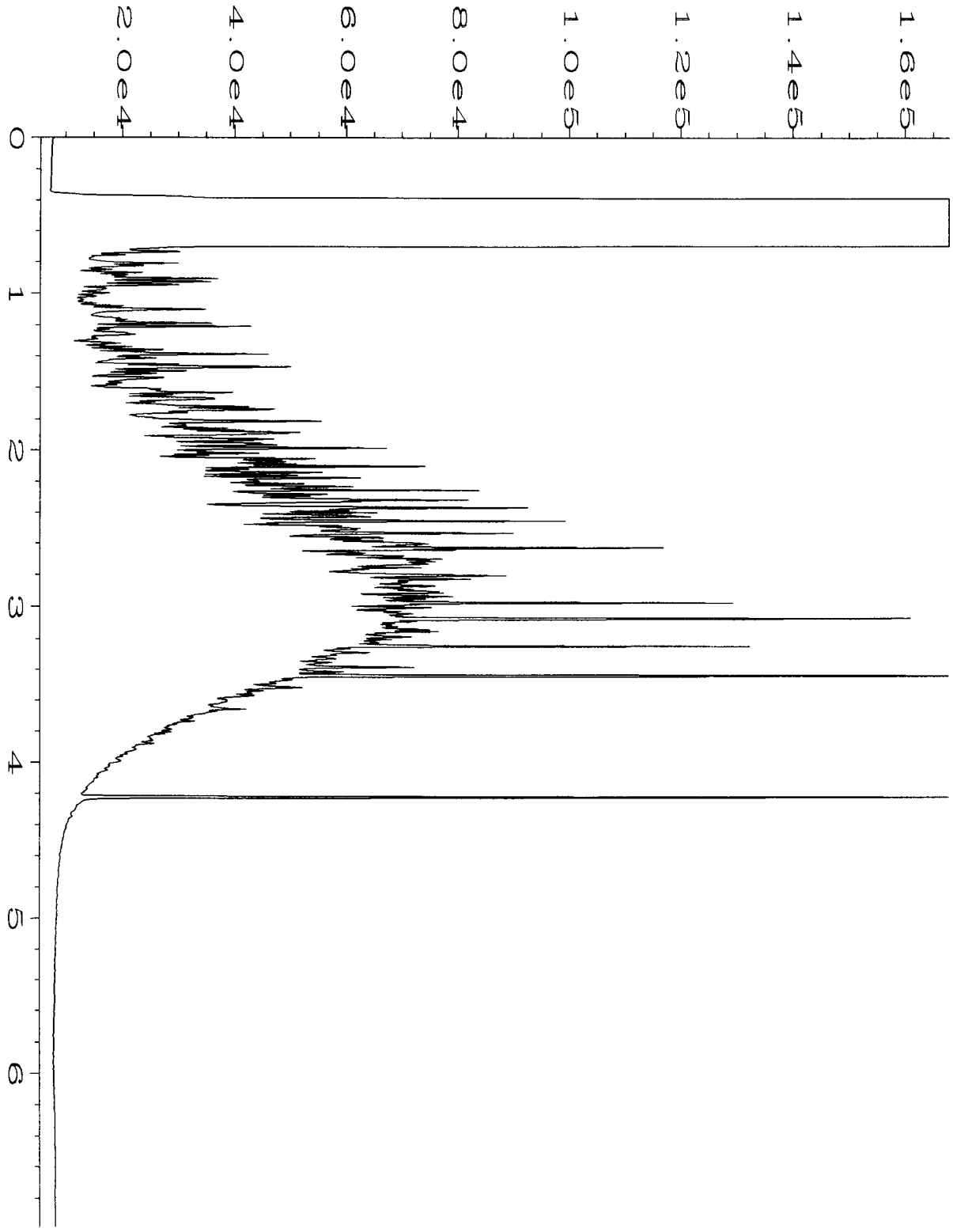
Data File Name	: C:\HPCHEM\6\DATA\05-12-15\037F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 37
Sample Name	: 505103-25	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 12 May 15 07:34 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



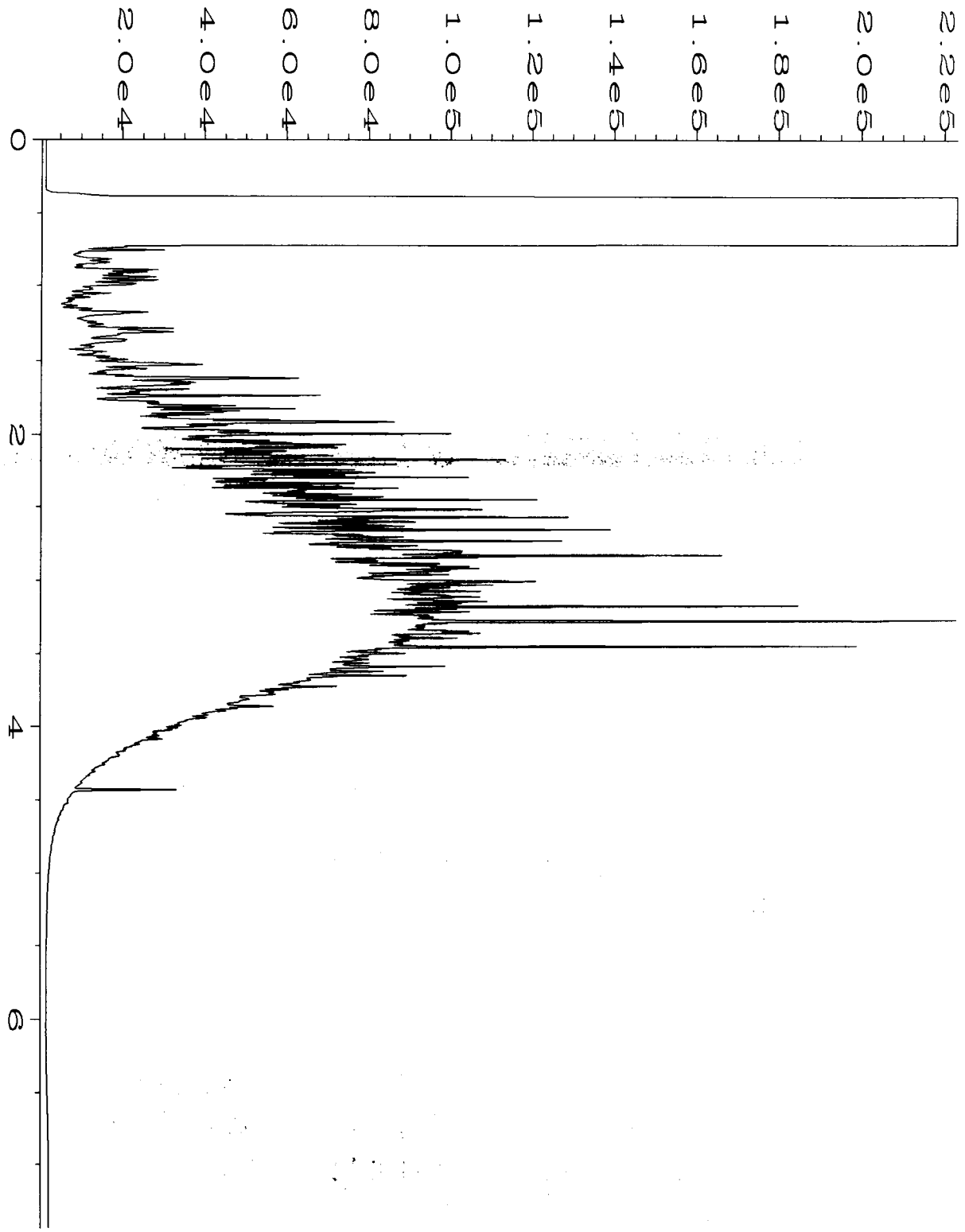
Data File Name	: C:\HPCHEM\4\DATA\05-08-15\024F0601.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 24
Sample Name	: 505103-26	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 08 May 15 04:21 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 10:31 AM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\05-08-15\025F0601.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 25
Sample Name	: 505103-27	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 08 May 15 04:32 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 10:31 AM	Analysis Method	: DX.MTH

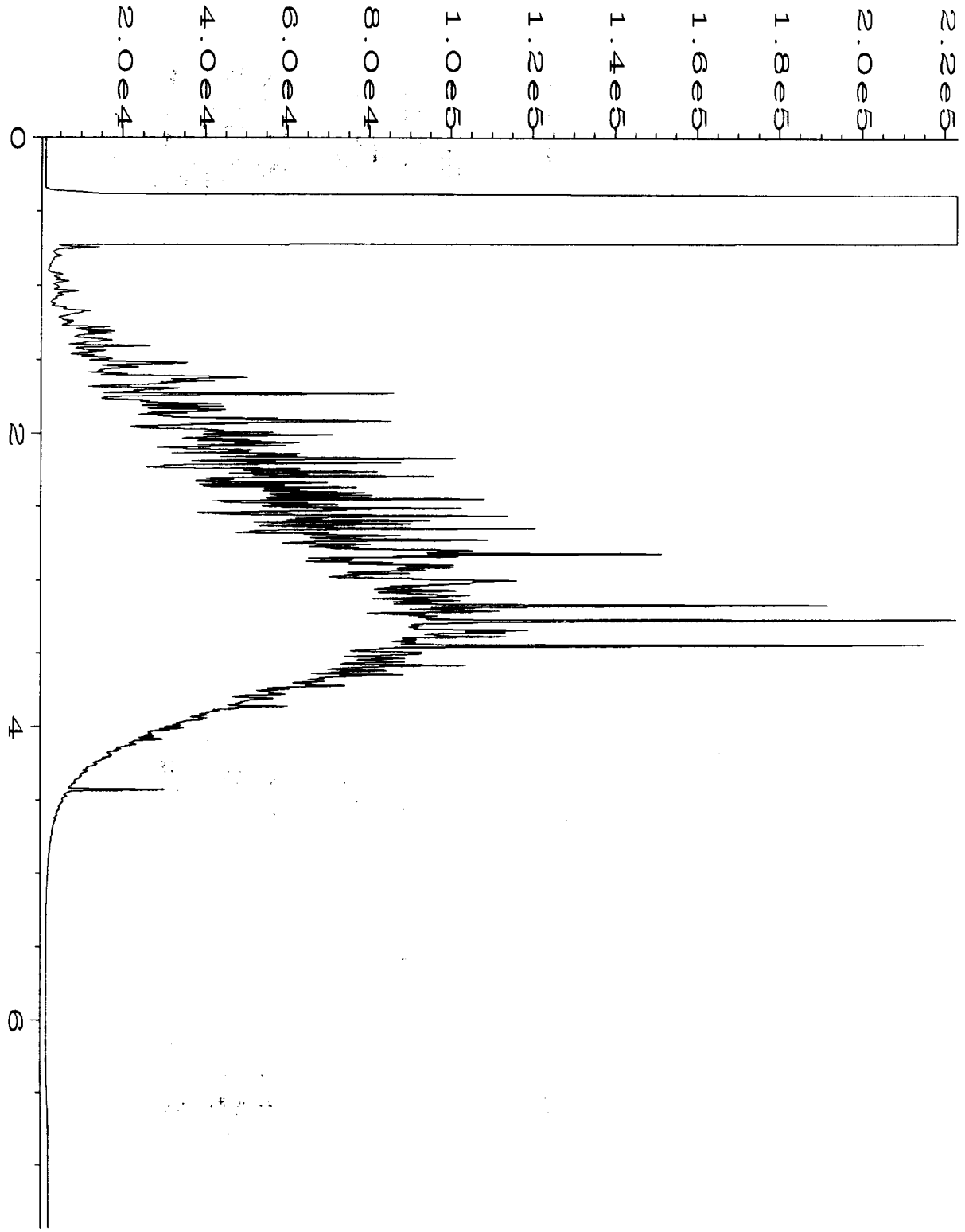


Data File Name	: C:\HPCHEM\6\DATA\05-12-15\038F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 38
Sample Name	: 505103-28	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 12 May 15 07:45 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



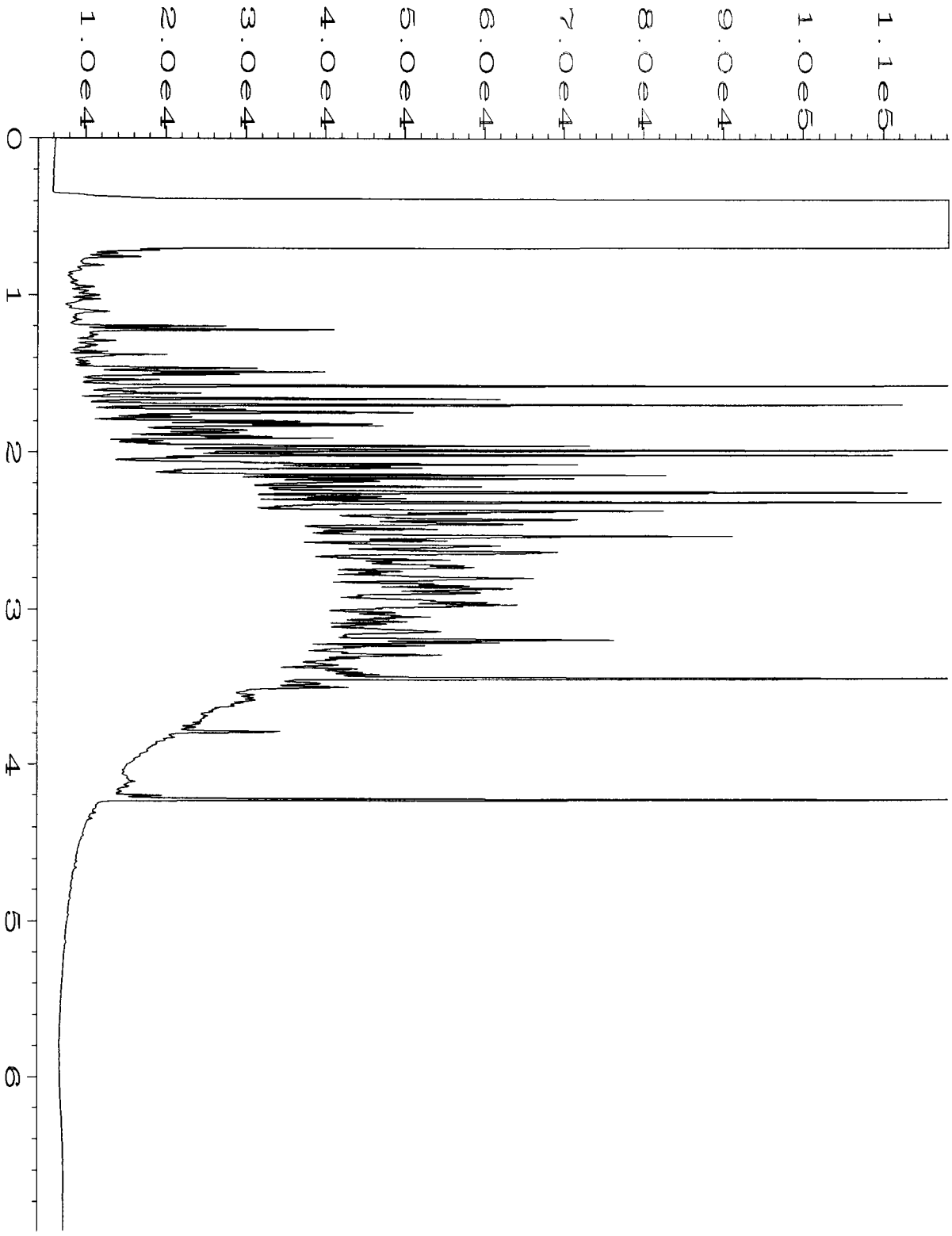
Data File Name : C:\HPCHEM\4\DATA\05-11-15\037F0901.D
Operator : mwdl
Instrument : GC#4
Sample Name : 505103-29 1/10
Run Time Bar Code:
Acquired on : 11 May 15 09:27 PM
Report Created on: 12 May 15 09:12 AM

Page Number : 1
Vial Number : 37
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DX.MTH

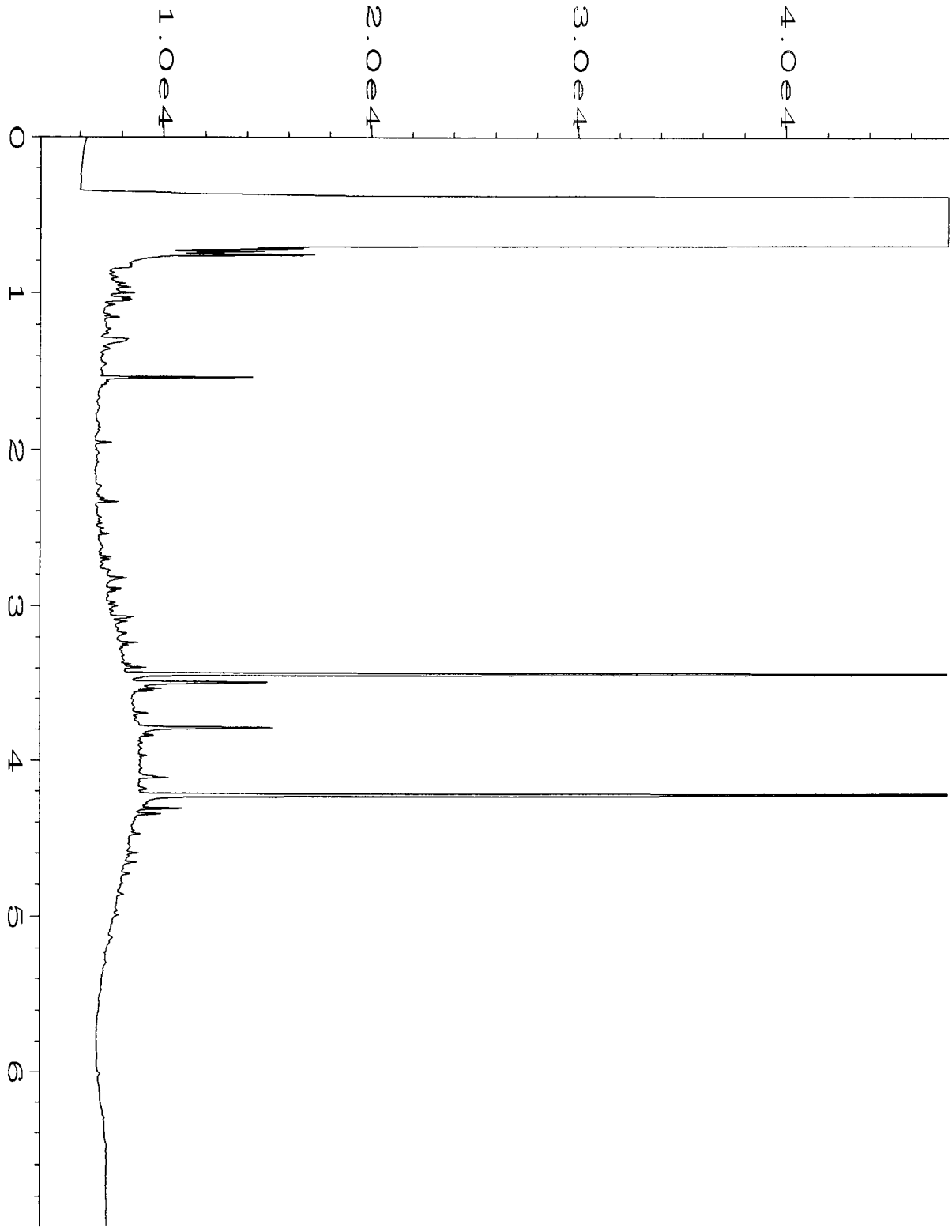


Data File Name : C:\HPCHEM\4\DATA\05-11-15\038F0901.D
Operator : mwdl
Instrument : GC#4
Sample Name : 505103-30 1/10
Run Time Bar Code:
Acquired on : 11 May 15 09:38 PM
Report Created on: 12 May 15 09:12 AM

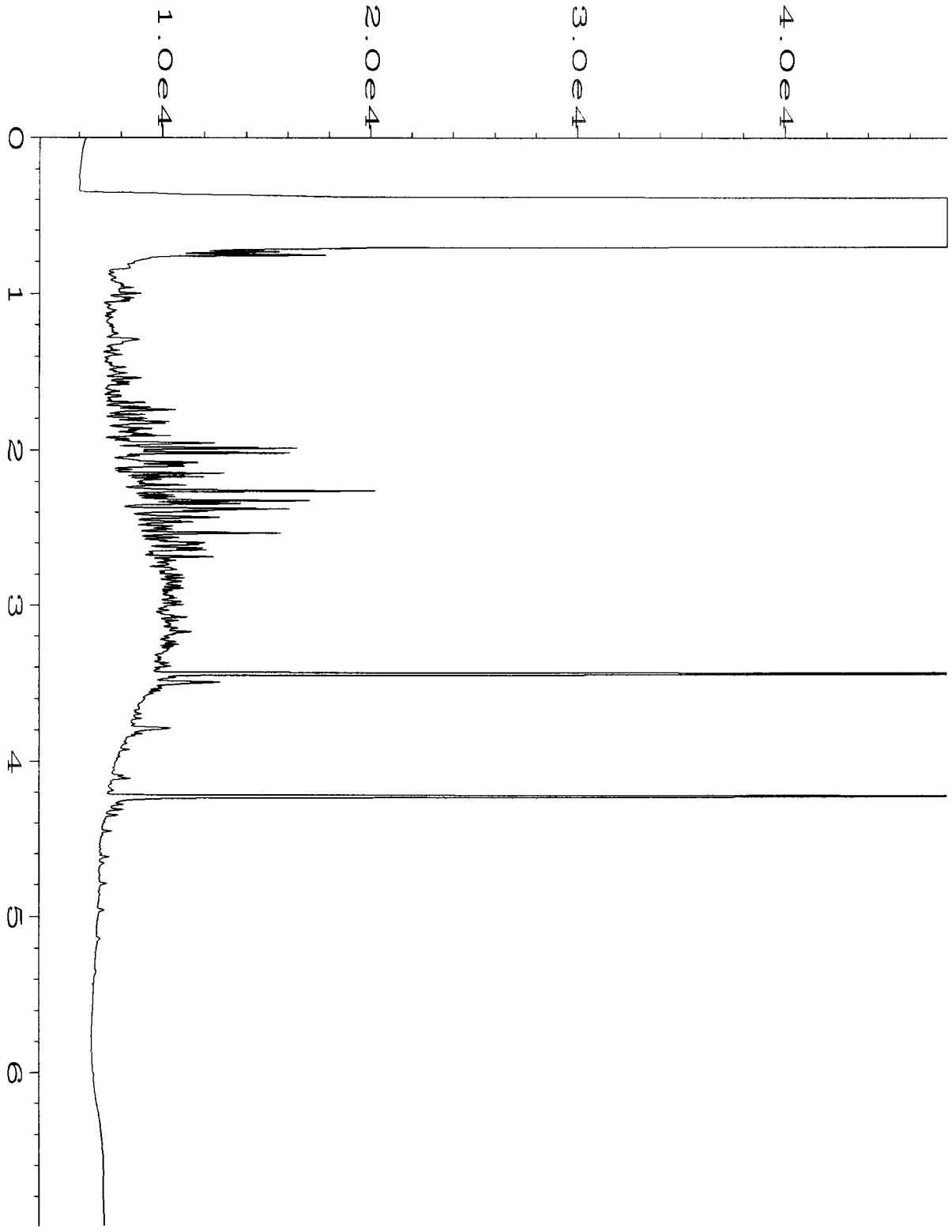
Page Number : 1
Vial Number : 38
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DX.MTH



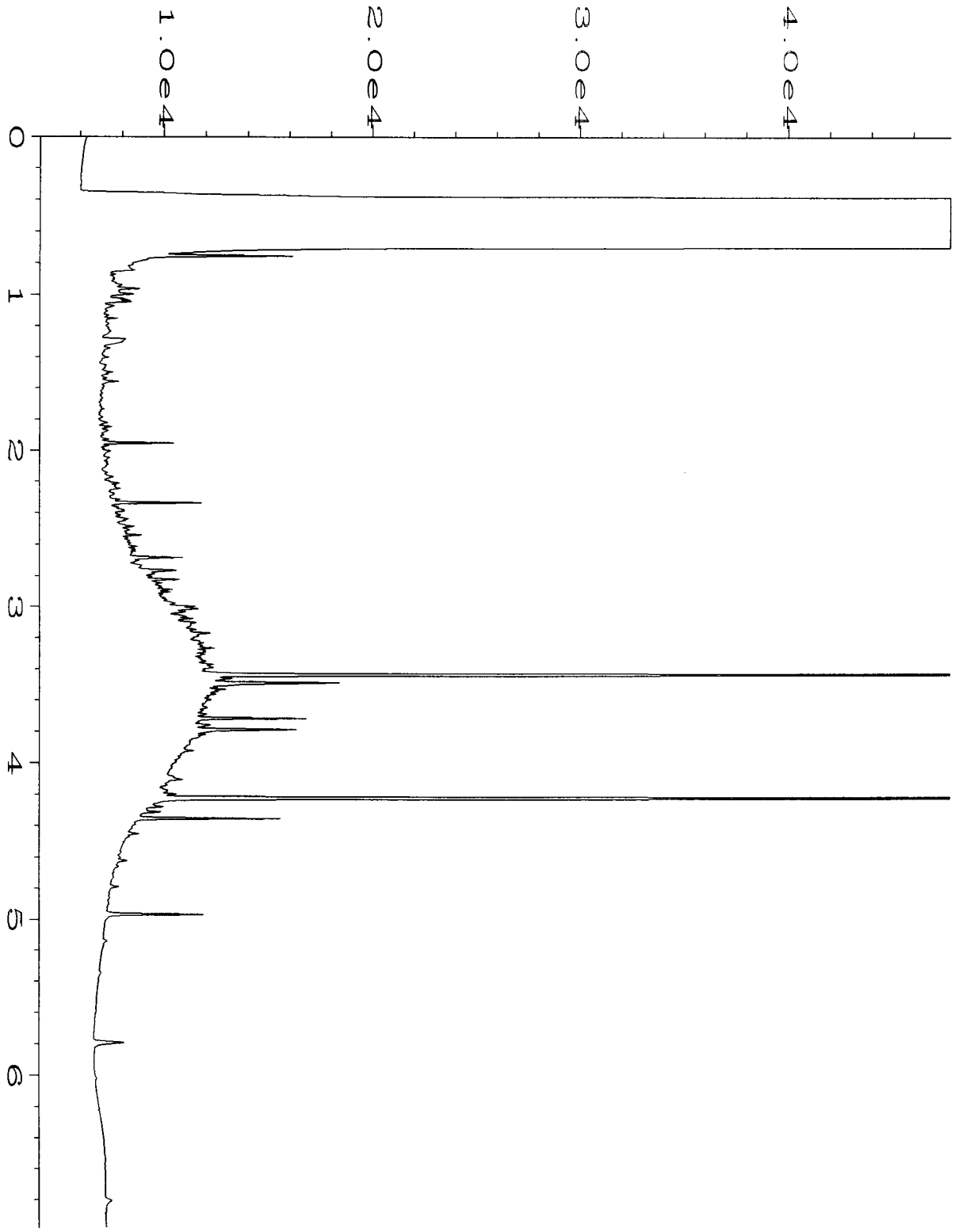
Data File Name	: C:\HPCHEM\6\DATA\05-08-15\045F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 45
Sample Name	: 505103-31	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 15 07:16 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH



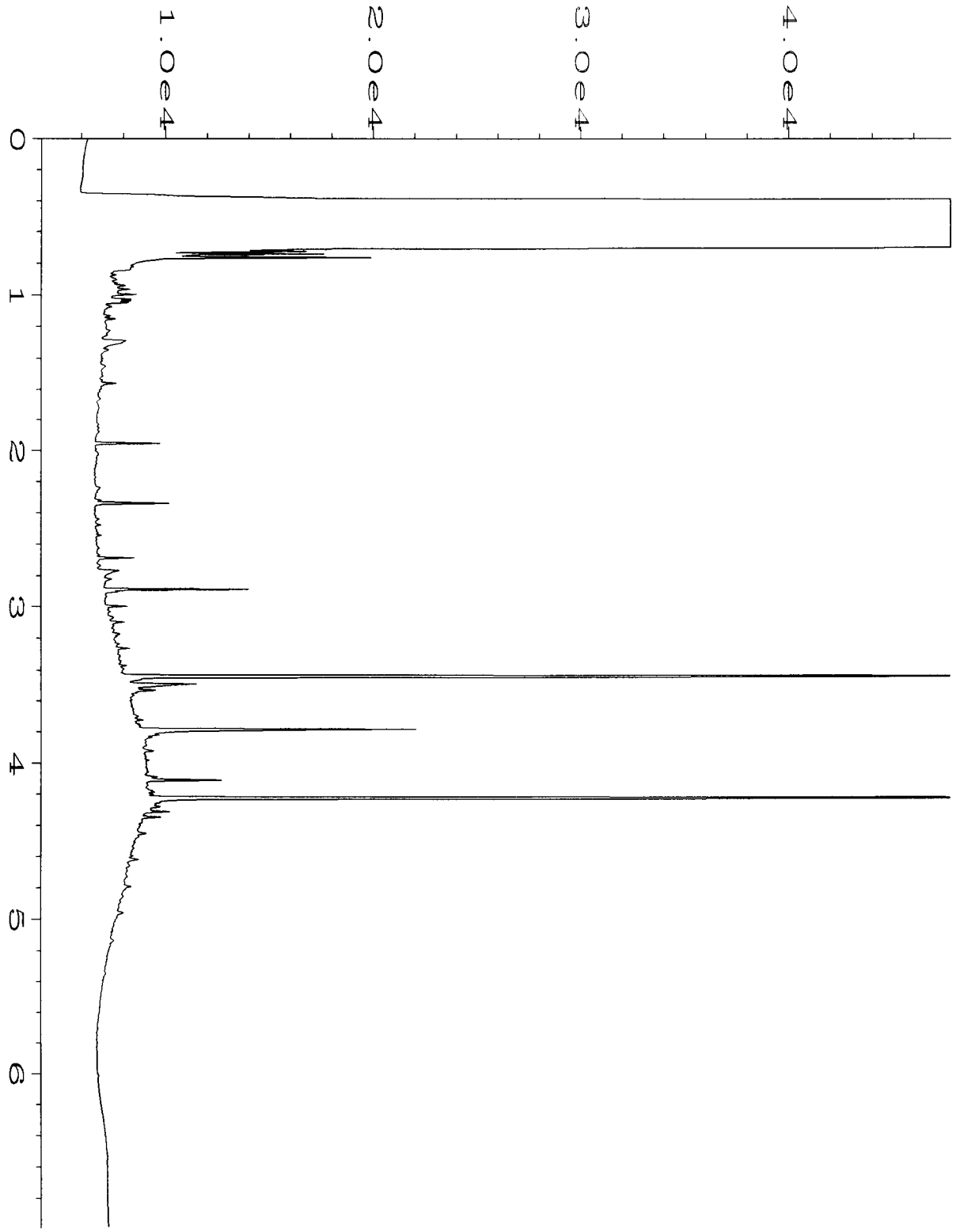
Data File Name	: C:\HPCHEM\6\DATA\05-08-15\046F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 46
Sample Name	: 505103-32	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 May 15 07:49 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH



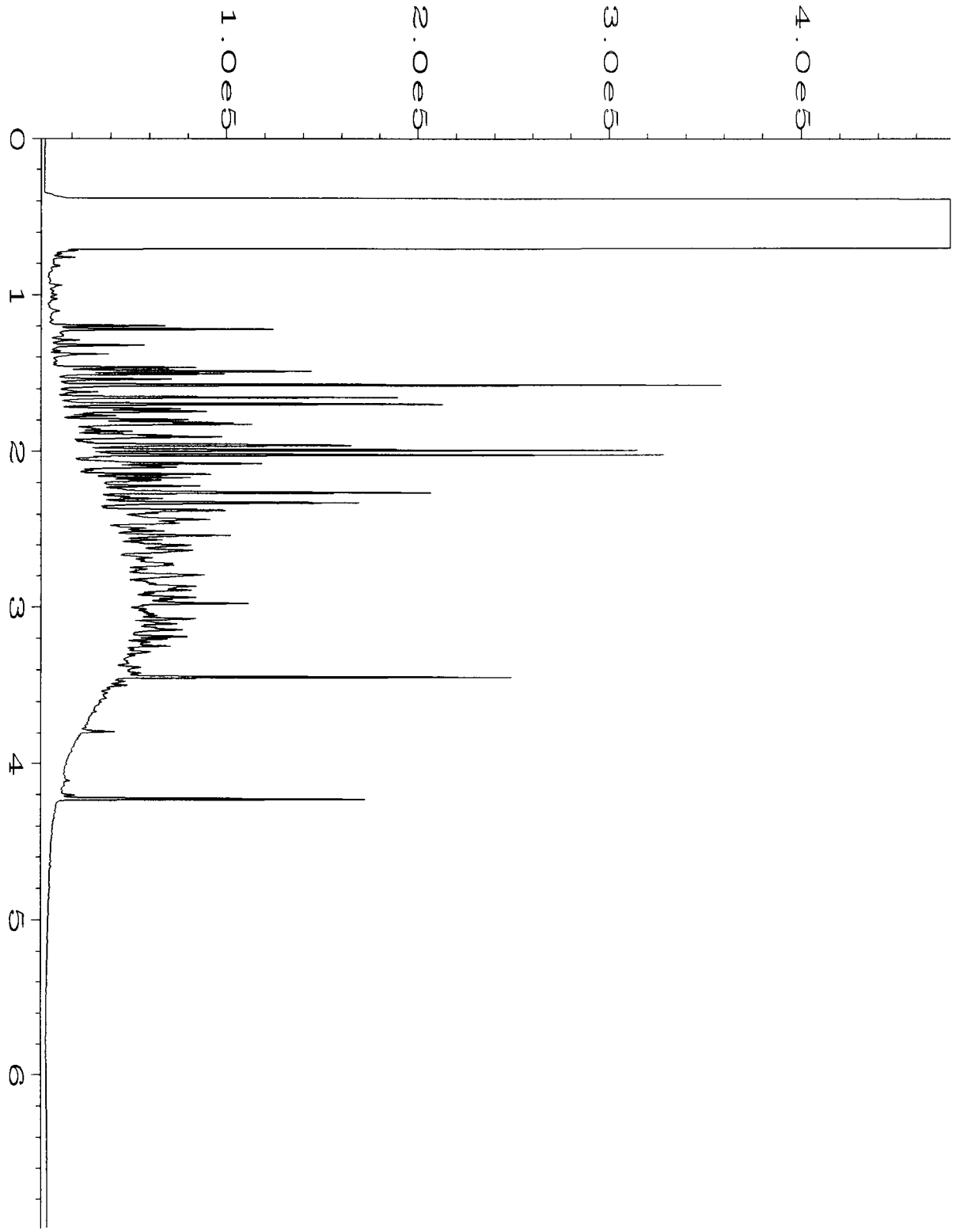
Data File Name	: C:\HPCHEM\6\DATA\05-08-15\047F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 47
Sample Name	: 505103-33	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 May 15 08:00 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH



Data File Name	: C:\HPCHEM\6\DATA\05-08-15\048F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 48
Sample Name	: 505103-34	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 May 15 08:11 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH

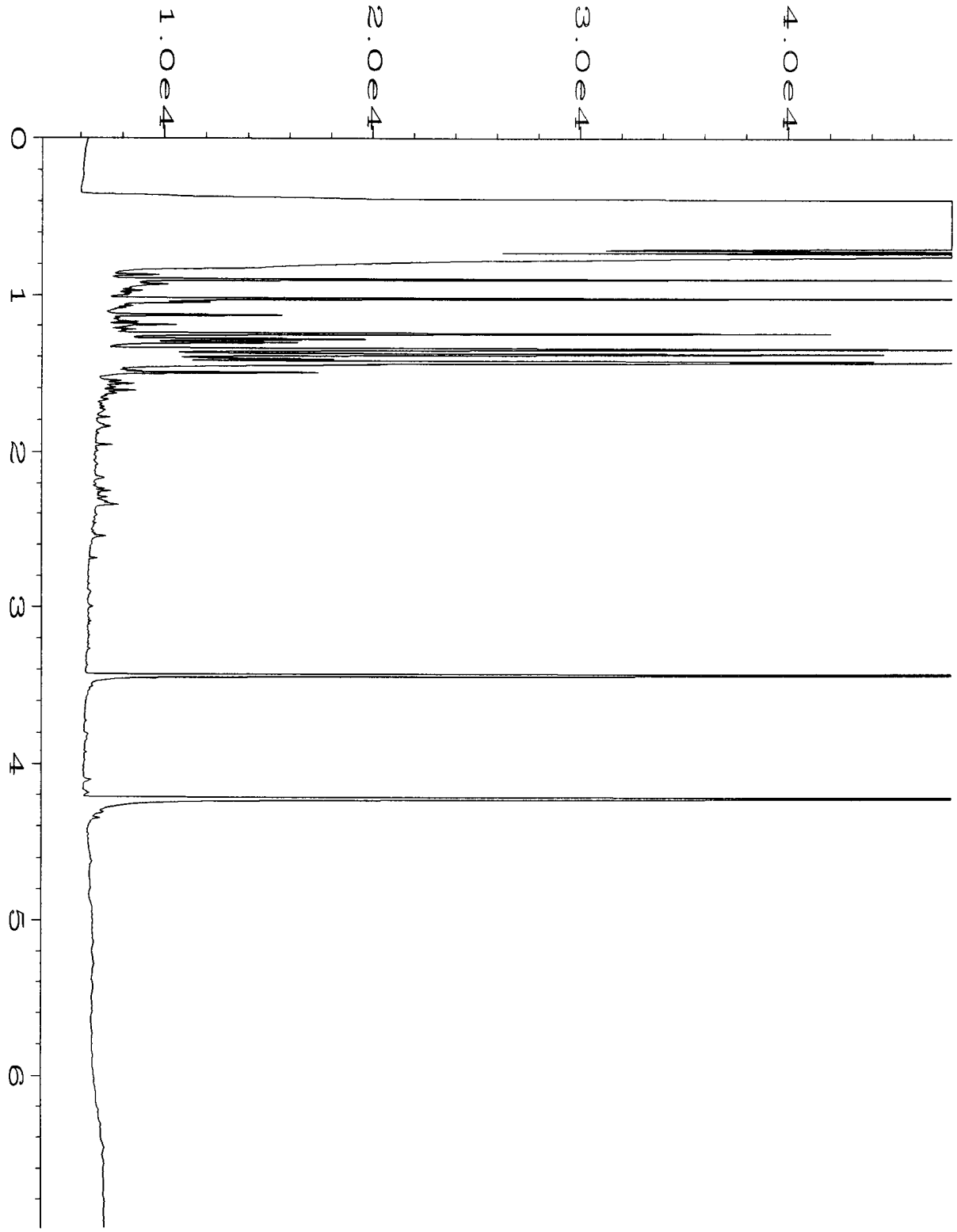


Data File Name	: C:\HPCHEM\6\DATA\05-08-15\049F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 49
Sample Name	: 505103-35	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 May 15 08:22 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH

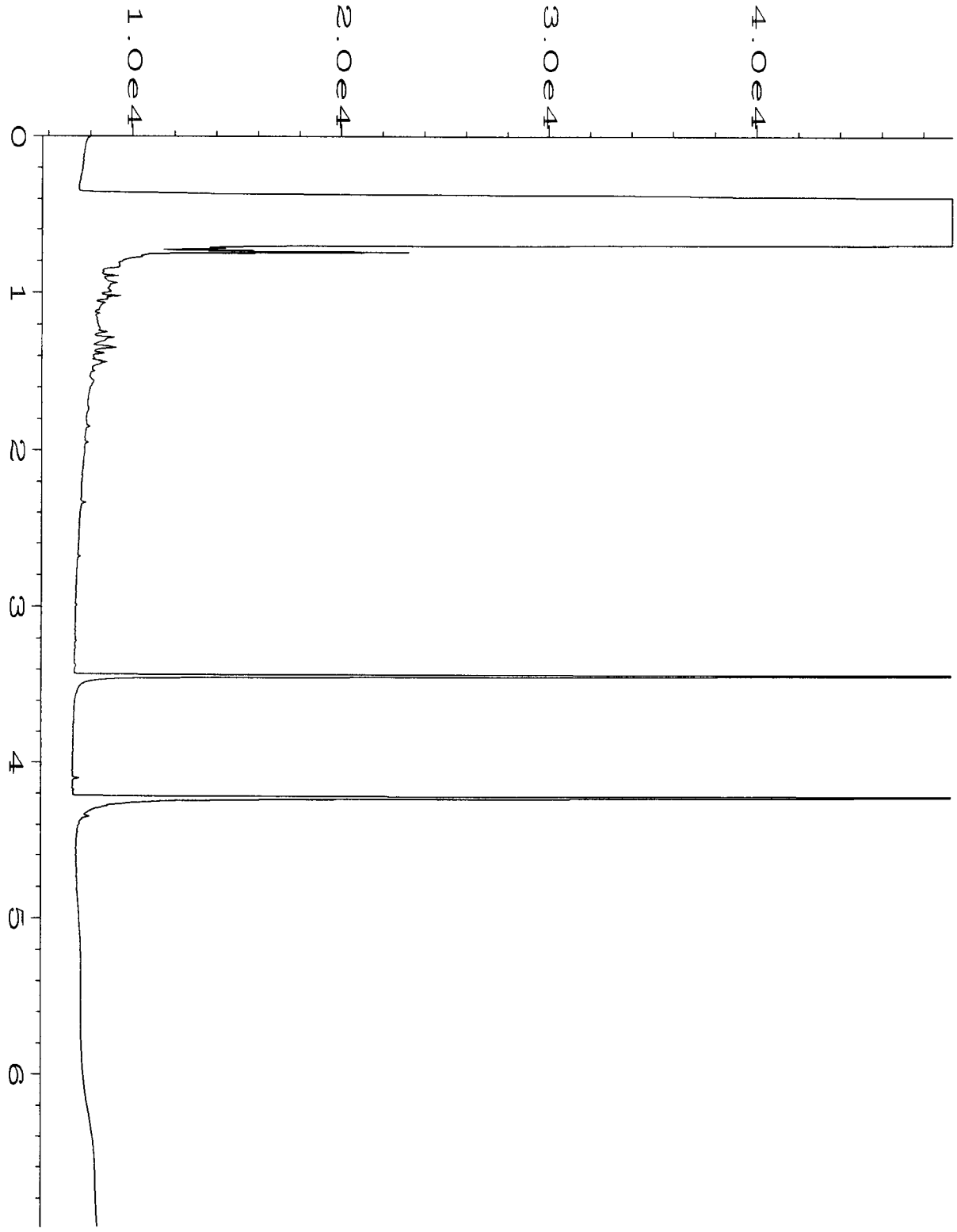


Data File Name : C:\HPCHEM\6\DATA\05-08-15\050F0901.D
Operator : mwdl
Instrument : GC #6
Sample Name : 505103-36
Run Time Bar Code:
Acquired on : 08 May 15 08:33 PM
Report Created on: 11 May 15 09:09 AM

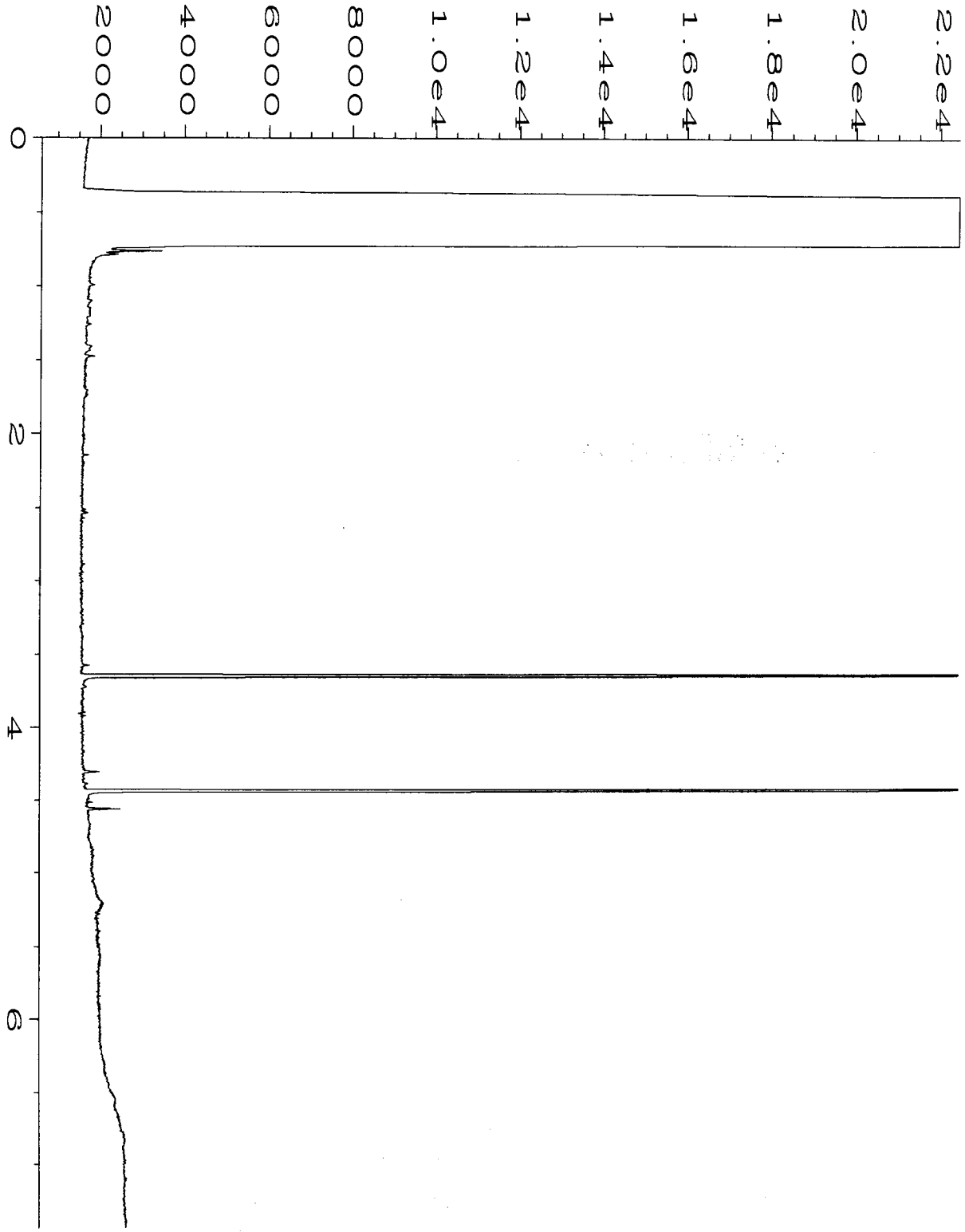
Page Number : 1
Vial Number : 50
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : BAKEOUT.MTH



Data File Name	: C:\HPCHEM\6\DATA\05-08-15\035F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 35
Sample Name	: 05-931 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 15 05:27 PM	Instrument Method	: DX.MTH
Report Created on	: 11 May 15 09:09 AM	Analysis Method	: BAKEOUT.MTH

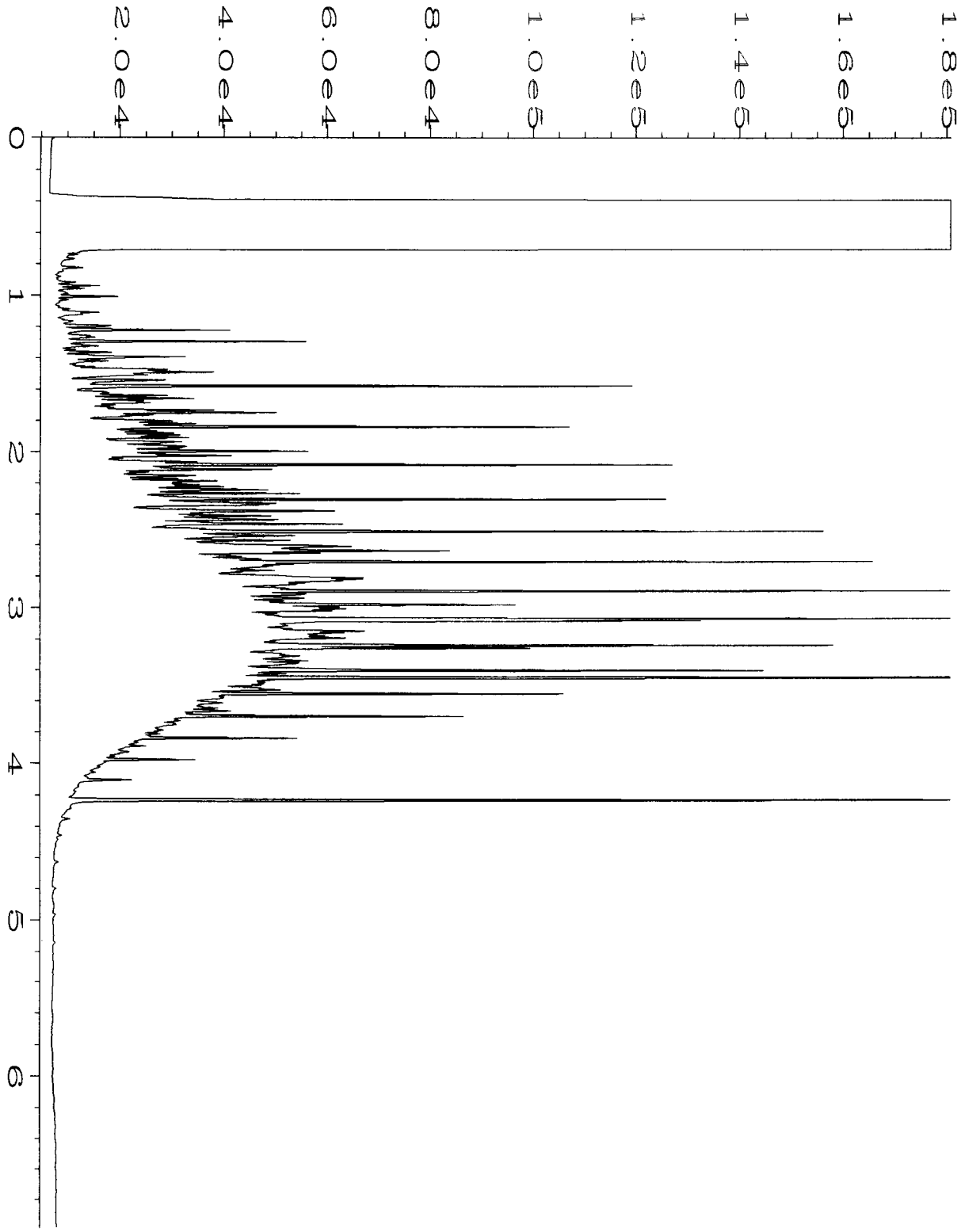


Data File Name	: C:\HPCHEM\6\DATA\05-12-15\016F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 16
Sample Name	: 05-956 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 12 May 15 03:23 PM	Instrument Method	: DX.MTH
Report Created on	: 13 May 15 10:07 AM	Analysis Method	: BAKEOUT.MTH



Data File Name : C:\HPCHEM\4\DATA\05-08-15\017F0601.D
Operator : mwdl
Instrument : GC#4
Sample Name : 05-945 mb
Run Time Bar Code:
Acquired on : 08 May 15 02:58 PM
Report Created on: 11 May 15 10:31 AM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\6\DATA\05-08-15\003F0201.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500 Dx 44-94C
Run Time Bar Code:
Acquired on : 08 May 15 09:22 AM
Report Created on: 11 May 15 09:10 AM

Page Number : 1
Vial Number : 3
Injection Number : 1
Sequence Line : 2
Instrument Method: DX.MTH
Analysis Method : BAKEOUT.MTH

505103

SAMPLE CHAIN OF CUSTODY ME 05/07/15

VS2/VS1/E03/AIS/CE2

Page # 1 of 4

Send Report To Gabe Cisneros
Company Floyd|Snider
Address 601 Union St Suite 600
City, State, ZIP Seattle, WA 98101
Phone # 206-292-2078 Fax #

SAMPLERS (signature)
PROJECT NAME/NO. CL-Ellensburg
PO#

REMARKS: Run HCID First. IF Dx, Gx, or both exceed reporting limits then run appropriate analytical Method. 8260 B short List for Soil includes: BTEXMTBE, EDB, EDC, n-hexane, ethanol, naphthalene

TURNAROUND TIME
☐ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Soil Short List VOCs by 8260	SVOCs by 8270	HFS	HCID	Total Lead by 6020	Notes
~~TP21-4.5-5~~ TP21-4.5-5	01 AE	5/6/15	1410	Soil	5	X	X	X				X		See Remarks
TP9-6-5.5	02	5/6/15	1430	Soil	5	[redacted]						X		
TP1-4-4.5	03	5/6/15	1455	Soil	5	X	X		X				X	
TP1-6.5-7	04	5/6/15	1500	Soil	5	[redacted]						X		
TP10-6-6.5B	05 V	5/6/15	1600	Soil	5	X	X	X				X		
TP10-6-6.5	06 AN	5/6/15	1545	Soil	15	X	X		X				X	MS/MSD
TP22-5.5-6	07 AE	5/6/15	1610	Soil	5	X	X	X				X		
TP22-5.5-6B	08 V	5/6/15	1615	Soil	5	X	X	X				X		Dup

■ - Followup per COC MES 5/11/15

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Gabriel Cisneros	Floyd/Snider	5/7/15	1700
Received by:	Enclosure	E-B	5/7/15	1700
Relinquished by:				
Received by:		Samples received at 4 °C		

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

FORMS\COC\COC.DOC

505103

SAMPLE CHAIN OF CUSTODY ME 05/07/15

JS2/V5/E03/AI5/CI2

Page # 2 of 4

Send Report To Gabe Cisneros
Company Floyd | Snider
Address 601 Union Street, Ste. 600
City, State, ZIP Seattle, WA 98101
Phone # 206-792-2078 Fax #

SAMPLERS (signature)

PROJECT NAME/NO.: CL-Ellensburg

PO#:

REMARKS: Run HCID First; If Dx, Gx, or both exceed reporting limits then run appropriate Analytical Method 8260B ShortList for soil: BTEX, MTBE, EDB, EDC, n-hexane, ethanol & naphthalene

TURNAROUND TIME
- [X] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Soil Short List VOCs by 8260	SVOCs by 8270	HFS	HCID	EDB by 8011	Total Lead by 6020				Notes
TP15-5-5.5	09 A-E	5/6/15	0830	Soil	5							X						See Remarks
TP12-6-6.5	10	5/6/15	0850	Soil	5							X						
TP11-5-5.5	11	5/6/15	0930	Soil	5		X	X				X						
TP4-6-6.5	12	5/6/15	1000	Soil	5							X						
TP5-6-6.5	13	5/6/15	1020	Soil	5							X						
TP3-5-5.5	14	5/6/15	1055	Soil	5		X	X				X						
TP6-5-5.5	15	5/6/15	1150	Soil	5							X						
TP2-5-5.5	16	5/6/15	1215	Soil	5							X						
TP8-6-6.5	17	5/6/15	1230	Soil	5							X						
TP7-5-5.5	18	5/6/15	1345	Soil	5							X						

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

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SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Gabriel Cisneros	Floyd/Snider	5/7/15	1700
Received by:		FRB	5/7/15	1700
Relinquished by:				
Received by:		Samples received at 4 °C		

505103

SAMPLE CHAIN OF CUSTODY

ME 05/07/15 VS2/ E03/AE5/ V5/

Page # 3 of 4

Send Report To Gabe Cisneros

Company Floyd|Snider

Address 601 Union Street, Suite 600

City, State, ZIP Seattle, WA 98101

Phone # 206-292-2078 Fax #

SAMPLERS (signature)

PROJECT NAME/NO. CL-Ellensburg

PO#

REMARKS: Run HCID First; If Dx or Gx or both exceed reporting Limits, then run appropriate analytical Method. 8260 shortlist for soil includes: BTEX, MTBE, EDB, EDC, n-hexane, ethanol, naphthalene.

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	Soil Short List VOCs by 8260	SVOCs by 8270	HFS	HCID	Total lead by 6020					Notes
TP20-4-4.5	19 A-E	5/5/15	1015	Soil	5	X	X	X				X						See Remarks
TP17-5.5-6.0	20	5/5/15	1100	Soil	5	[redacted]	X	X				X						↓
3C ~~TP14~~ TP14-5-5.5	21	↓	1155	Soil	5	X	X	X				X						↓
MW7 ~~3-3.5~~ 5-5.5	22	↓	1220	Soil	5	[redacted]	[redacted]	[redacted]				X						↓
TP13-5.5-6	23	↓	1250	Soil	5	X	X	X				X						↓
MW4A-6-6.5	24	↓	1415	Soil	5	X	X		X				X					↓
TP19-6-6.5	25	↓	1500	Soil	5	[redacted]	X	X				X						↓
MW5A-6-6.5	26	↓	1545	Soil	5	X	X		X				X					↓
TP18-5-5.5	27	↓	1610	Soil	5	X	X		X				X					↓
TP16-5-5.5	28	↓	1645	Soil	5	[redacted]	[redacted]	[redacted]				X						↓

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Gabriel Cisneros	Floyd/Snider	5/7/15	1700
Received by:	Eric Young	FBI	5/7/15	1700
Relinquished by:				
Received by:		Samples received at 4 °C		

505103

SAMPLE CHAIN OF CUSTODY

ME 05/07/15

VS2/VS/EDB/ADS/CE2

Page # 4 of 4

Send Report To Gabriel Cisneros

Company Floyd|Snider

Address 601 Union St. Suite 600

City, State, ZIP Seattle, WA 98101

Phone # 206-292-2078 Fax # ____

SAMPLERS (signature) [signature]

PROJECT NAME/NO. CL-Ellensburg

PO#

REMARKS 8260 VOCs include for GW samples include: BTEX, MTBE, EDC, Naphthalene & ethanol. Product (LNAPL) Short List 8260 include: Ethanol, BTEX, MTBE, naphthalene, n-hexane, EDC, butane

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH ____

Rush charges authorized by ____

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	GW Short List VOCs by 8260	SVOCs by 8270	HFS	Total Lead by 6020	EDB by method 8011		Product 8260 Short List	HCID		Notes
MW2-4-14 LNAPL	29	5/7/15	0850	LNAPL	1	X	X					X	X		X			
MW5A-4-14 LNAPL	30	5/7/15	0900	LNAPL	1	X	X					X	X		X			
MW4A-4-14	31 A-J	5/7/15	0949	GW	10	X	X		X			X	X					
MW1A-4-14	32 A-E	5/7/15	~~1015~~ 1005	GW	5	X	X		X			X	X					
MW7-4-14	33	5/7/15	1035	GW	5	X	X		X			X	X					
MW3-4-14	34	5/7/15	1110	GW	5	X	X		X			X	X					
MW1A-4-14 B	35	5/7/15	1010	GW	5	X	X		X			X	X					
PurgeWaterWaste-050715	36	5/7/15	1103	GW	5	X	X		X			X						
Trip Blank	37 A-C	—	—	water	3													ND 5/7/15 Added at lab

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Gabriel Cisneros	Floyd/Snider	5/7/15	1700
Received by: [signature]	[signature]	F&B	5/7/15	[illegible]
Relinquished by:				
Received by:				

Samples received at 4 °C

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

July 27, 2015

Gabriel Cisneros, Project Manager
Floyd-Snider
Two Union Square, Suite 600
601 Union St
Seattle, WA 98101

Dear Mr. Cisneros:

Included are the results from the testing of material submitted on July 17, 2015 from the CL-Ellensburg, F&BI 507270 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
FDS0727R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 17, 2015 by Friedman & Bruya, Inc. from the Floyd-Snider CL-Ellensburg, F&BI 507270 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
507270 -01	MW1A-4-14
507270 -02	MW3-4-14
507270 -03	MW1A-4-14B
507270 -04	MW7-4-14
507270 -05	MW4A-4-14
507270 -06	Trip Blank

All quality control requirements were acceptable.

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270
Date Extracted: 07/20/15
Date Analyzed: 07/20/15

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
MW1A-4-14 507270-01	<100	86
MW3-4-14 507270-02	<100	87
MW1A-4-14B 507270-03	<100	86
MW7-4-14 507270-04	<100	87
MW4A-4-14 507270-05	140	91
Method Blank 05-1344 MB	<100	86

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270
Date Extracted: 07/20/15
Date Analyzed: 07/20/15

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
Trip Blank 507270-06	<1	<1	<1	<3	<100	87
Method Blank 05-1344 MB	<1	<1	<1	<3	<100	83

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270
Date Extracted: 07/21/15
Date Analyzed: 07/21/15

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-134)
MW1A-4-14 507270-01	<50	<250	97
MW3-4-14 507270-02	180	<250	114
MW1A-4-14B 507270-03	<50	<250	109
MW7-4-14 507270-04	100	<250	93
MW4A-4-14 507270-05	1,600	<250	127
Method Blank 05-1478 MB	<50	<250	112

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14	Client:	Floyd-Snider
Date Received:	07/17/15	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	507270-01
Date Analyzed:	07/21/15	Data File:	072118.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	104	91	108
4-Bromofluorobenzene	99	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-4-14	Client:	Floyd-Snider
Date Received:	07/17/15	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	507270-02
Date Analyzed:	07/20/15	Data File:	072024.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	100	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14B	Client:	Floyd-Snider
Date Received:	07/17/15	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	507270-03
Date Analyzed:	07/20/15	Data File:	072025.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	101	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW7-4-14	Client:	Floyd-Snider
Date Received:	07/17/15	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	507270-04
Date Analyzed:	07/20/15	Data File:	072026.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	103	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4A-4-14	Client:	Floyd-Snider
Date Received:	07/17/15	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	507270-05
Date Analyzed:	07/20/15	Data File:	072027.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	85	117
Toluene-d8	100	91	108
4-Bromofluorobenzene	100	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 507270
Date Extracted:	07/20/15	Lab ID:	05-1454 mb
Date Analyzed:	07/20/15	Data File:	072007.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	85	117
Toluene-d8	101	91	108
4-Bromofluorobenzene	100	76	126

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270

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

Laboratory Code: 507276-03 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	104	65-118
Toluene	ug/L (ppb)	50	102	72-122
Ethylbenzene	ug/L (ppb)	50	107	73-126
Xylenes	ug/L (ppb)	150	102	74-118
Gasoline	ug/L (ppb)	1,000	91	69-134

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270

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

Laboratory Code: 507270-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	<250	118	124	52-149	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	93	95	58-134	2

Date of Report: 07/27/15
Date Received: 07/17/15
Project: CL-Ellensburg, F&BI 507270

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

Laboratory Code: 507270-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	<0.35	95	97	78-108	2
Toluene	ug/L (ppb)	50	<1	91	92	73-117	1
Ethylbenzene	ug/L (ppb)	50	<1	93	96	71-120	3
m,p-Xylene	ug/L (ppb)	100	<2	95	97	63-128	2
o-Xylene	ug/L (ppb)	50	<1	102	103	64-129	1
Naphthalene	ug/L (ppb)	50	<1	118	112	62-140	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	95	96	81-108	1
Toluene	ug/L (ppb)	50	93	93	83-108	0
Ethylbenzene	ug/L (ppb)	50	95	95	83-111	0
m,p-Xylene	ug/L (ppb)	100	98	98	84-112	0
o-Xylene	ug/L (ppb)	50	102	101	81-117	1
Naphthalene	ug/L (ppb)	50	105	112	72-131	6

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

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

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

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

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

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

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

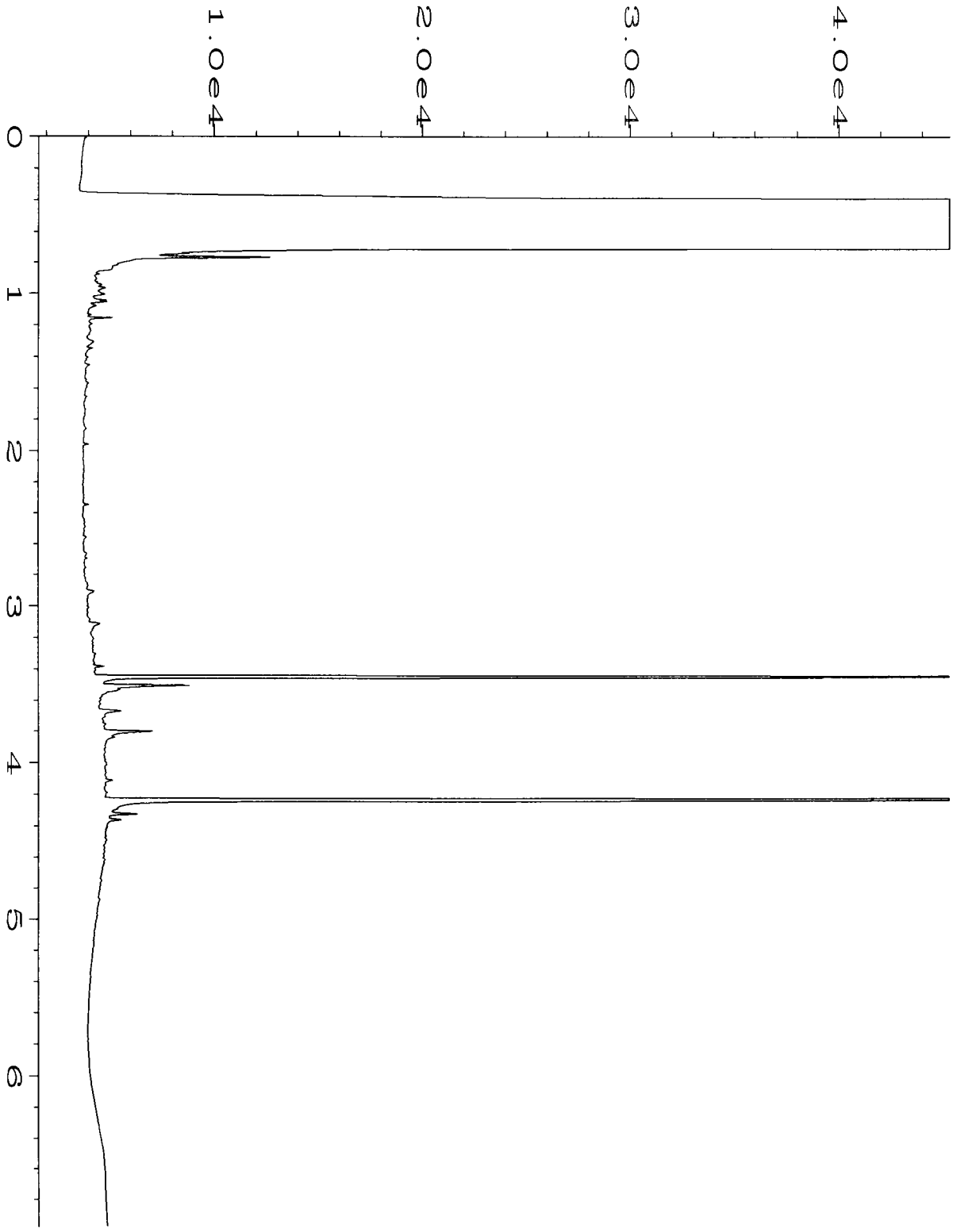
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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

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

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

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



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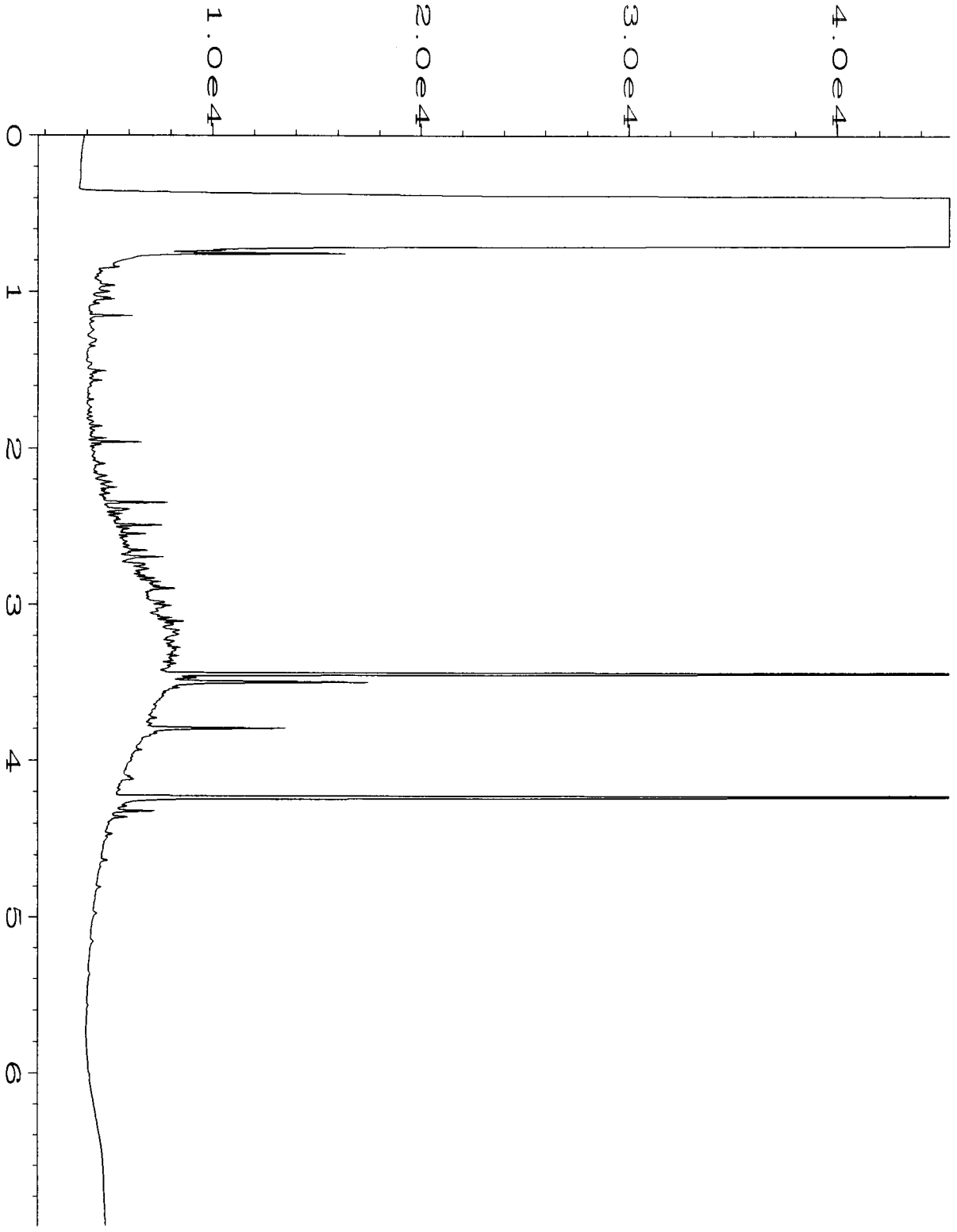
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 27
Sample Name	: 507270-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 21 Jul 15 03:58 PM	Instrument Method	: DX.MTH
Report Created on	: 22 Jul 15 08:33 AM	Analysis Method	: DX.MTH



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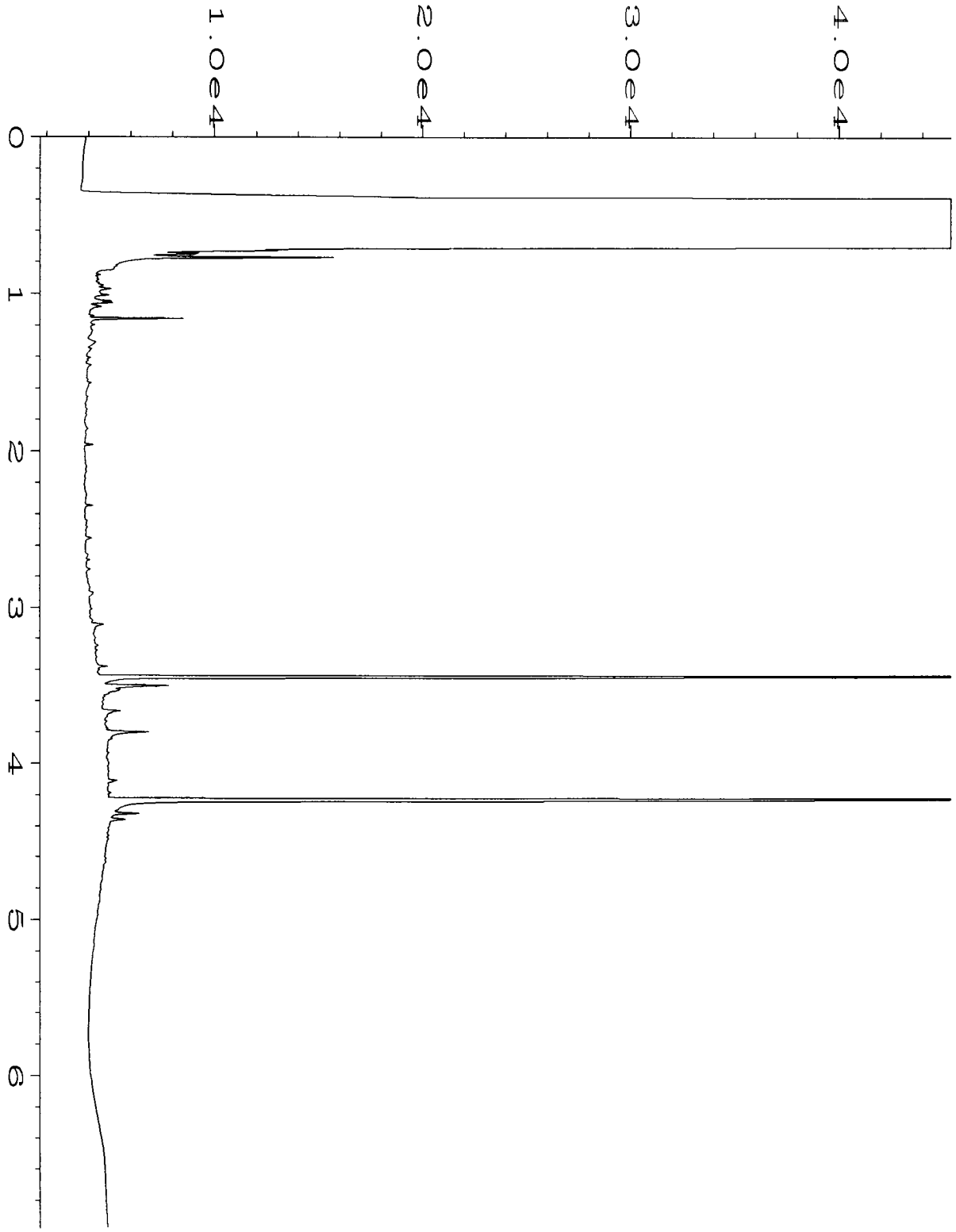
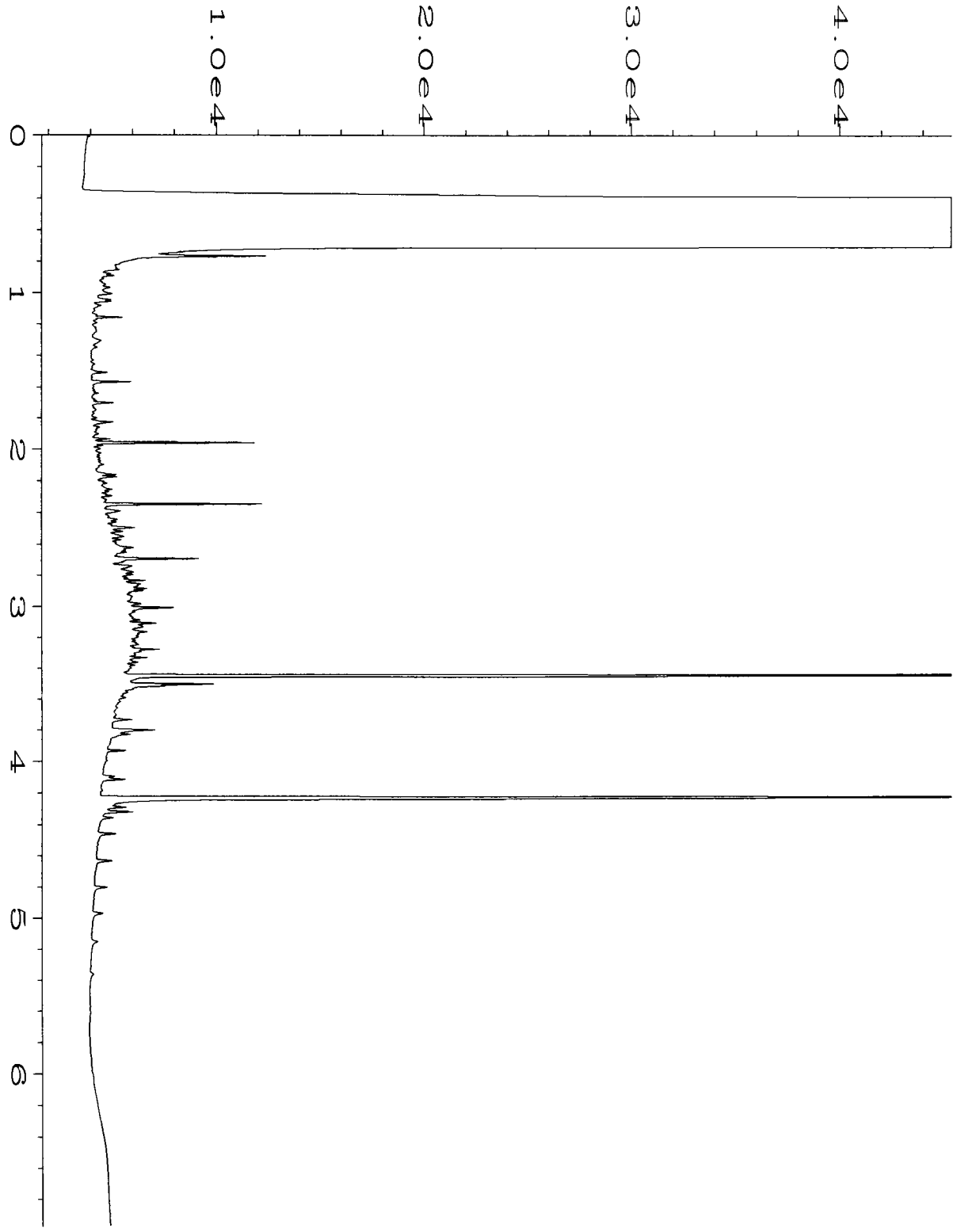
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 28
Sample Name	: 507270-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 21 Jul 15 04:10 PM	Instrument Method	: DX.MTH
Report Created on	: 22 Jul 15 08:33 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\6\DATA\07-21-15\031F0501.D
Operator : mwdl
Instrument : GC #6
Sample Name : 507270-03
Run Time Bar Code:
Acquired on : 21 Jul 15 04:41 PM
Report Created on: 22 Jul 15 08:33 AM

Page Number : 1
Vial Number : 31
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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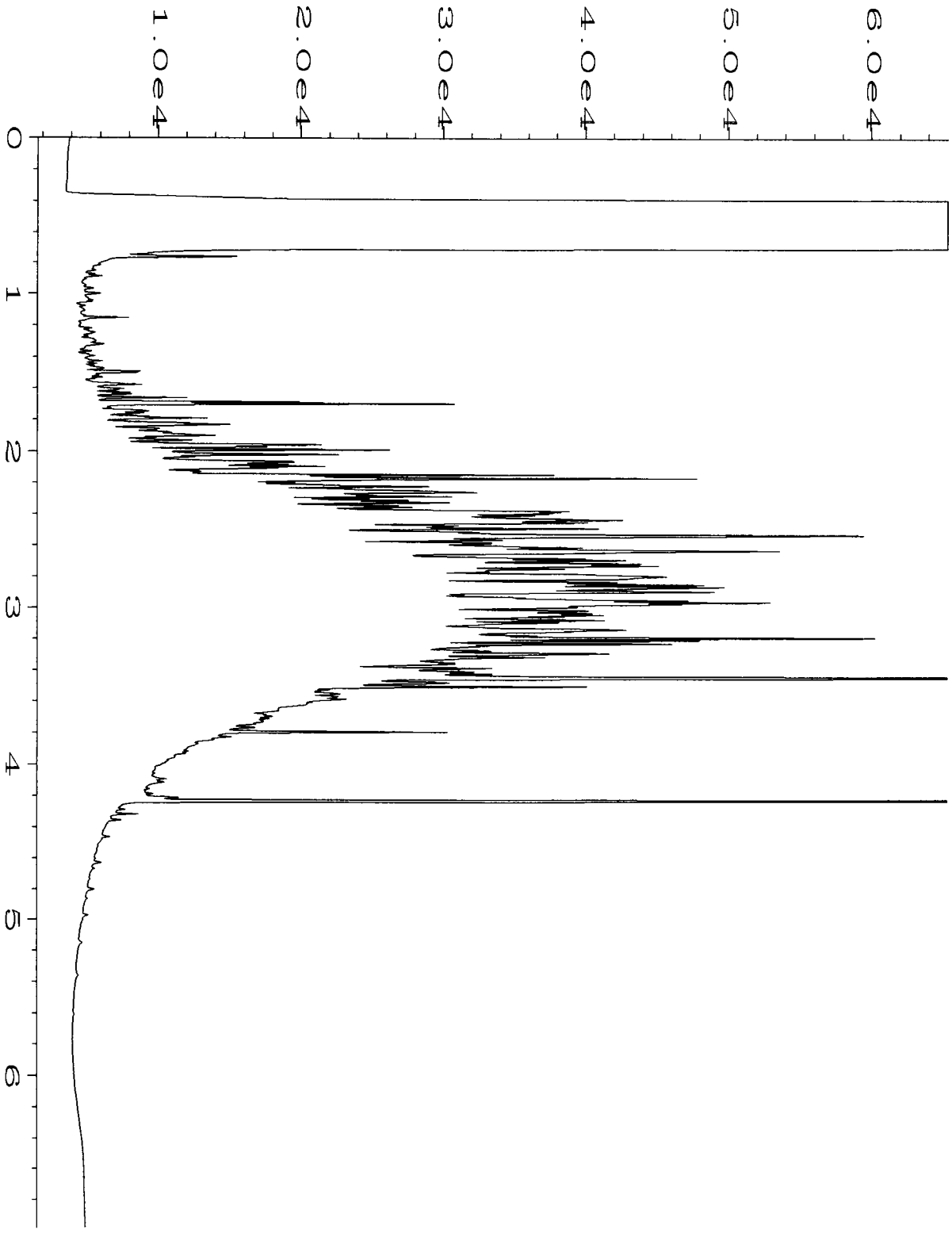
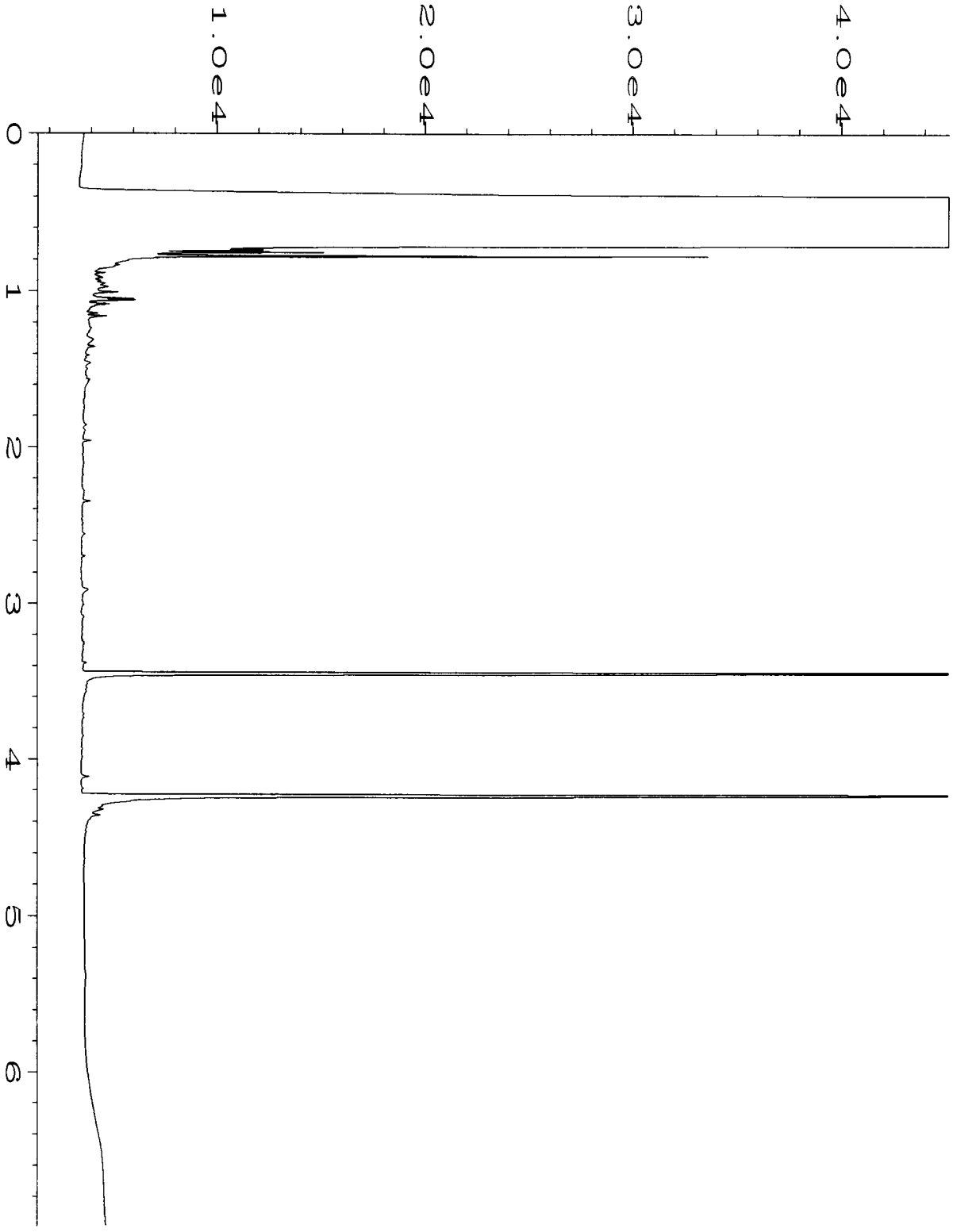
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 32
Sample Name	: 507270-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 21 Jul 15 04:52 PM	Instrument Method	: DX.MTH
Report Created on	: 22 Jul 15 08:33 AM	Analysis Method	: DX.MTH

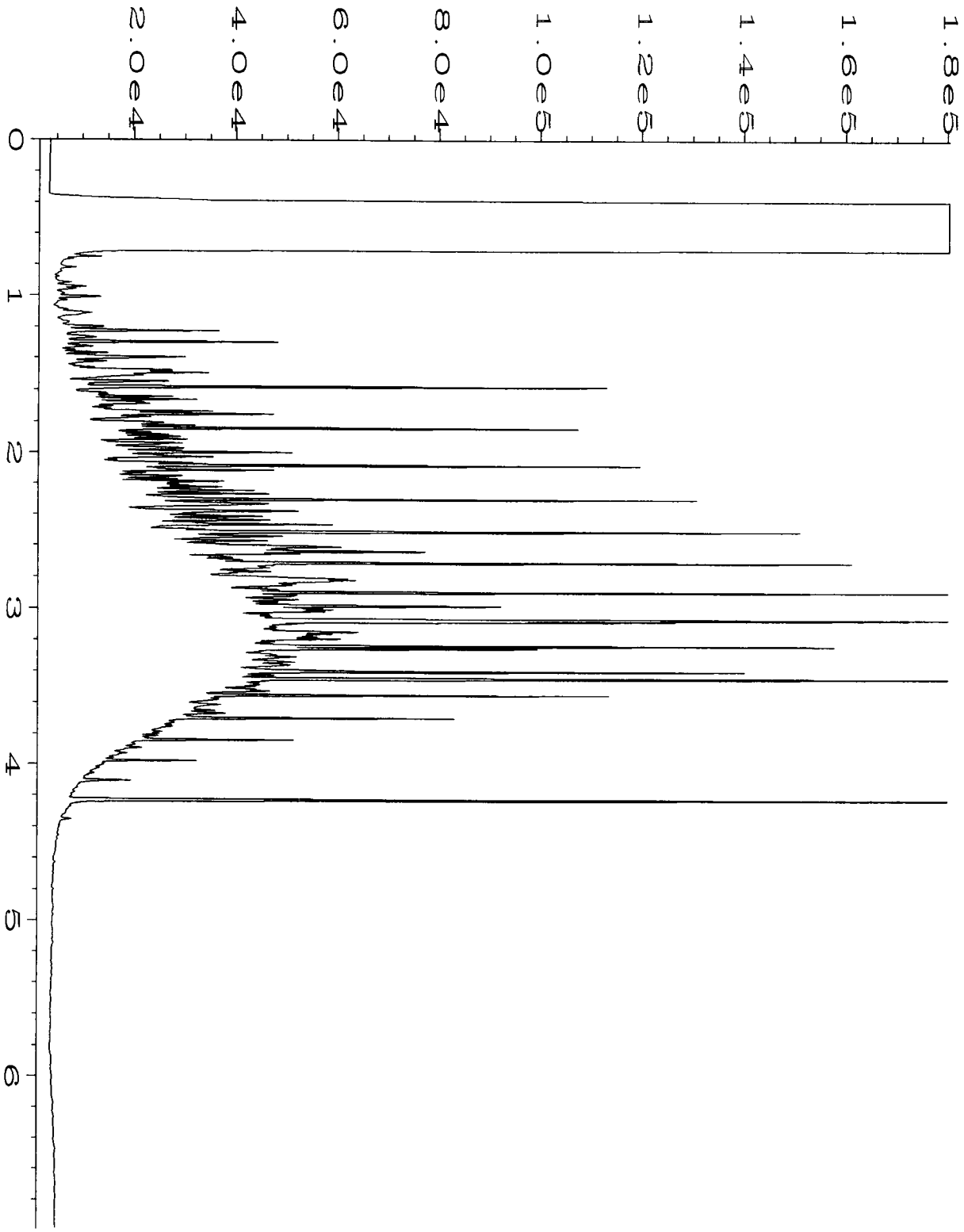


Data File Name	: C:\HPCHEM\6\DATA\07-21-15\033F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 33
Sample Name	: 507270-05	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 21 Jul 15 05:03 PM	Instrument Method	: DX.MTH
Report Created on	: 22 Jul 15 08:33 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\6\DATA\07-21-15\024F0301.D
Operator : mwdl
Instrument : GC #6 B
Sample Name : 05-1472 mb
Run Time Bar Code:
Acquired on : 21 Jul 15 01:18 PM
Report Created on: 22 Jul 15 08:32 AM

Page Number : 1
Vial Number : 24
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\6\DATA\07-21-15\003F0201.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 3
Sample Name	: 500 Dx 44-94C	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 21 Jul 15 09:05 AM	Instrument Method	: DX.MTH
Report Created on	: 22 Jul 15 08:32 AM	Analysis Method	: DX.MTH

507270

SAMPLE CHAIN OF CUSTODY ME 07-17-15

D04 / V.4

Page # 1 of 1

Send Report To Gabriel Cisneros
Company Floyd|Snider
Address 601 Union Street, Suite 600
City, State, ZIP Seattle, WA 98101
Phone # 206-292-2078 Fax #

SAMPLERS (signature)
PROJECT NAME/NO.: CL-Ellensburg
PO#:
REMARKS

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS	Notes
MW1A-4-14	01A-H	07/16	1100	W	8	X	X		X			VOCs include only BTEX & Naphthalene
MW3-4-14	02A-Q		1015		17	X	X		X			Include MS/MSD
MW1A-4-14B	03A-H		1110		8	X	X		X			8260B BTEX VOCs include Naph
MW7-4-14	04 T		1145		8	X	X		X			
MW4A-4-14	05		1240		8	X	X		X			
TripBlank	06A-B	—	—	W	2		X	X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Gabriel Cisneros	Floyd|Snider	7/17/15	0933
Received by:	Eric Young	FAS	7/17/15	0933
Relinquished by:				
Received by:				

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

October 27, 2015

Gabriel Cisneros, Project Manager
Floyd-Snider
Two Union Square, Suite 600
601 Union St
Seattle, WA 98101

Dear Mr. Cisneros:

Included are the results from the testing of material submitted on October 20, 2015 from the CL-Ellensburg, F&BI 510306 project. There are 14 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
FDS1027R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on October 20, 2015 by Friedman & Bruya, Inc. from the Floyd-Snider CL-Ellensburg, F&BI 510306 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
510306 -01	MW1A-4-14
510306 -02	MW1A-4-14B
510306 -03	MW3-4-14
510306 -04	MW4A-4-14
510306 -05	MW7-4-14
510306 -06	Trip Blank

All quality control requirements were acceptable.

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306
Date Extracted: 10/21/15
Date Analyzed: 10/21/15

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
MW1A-4-14 510306-01	<100	90
MW1A-4-14B 510306-02	<100	88
MW3-4-14 510306-03	<100	89
MW4A-4-14 510306-04	120	93
MW7-4-14 510306-05	<100	90
Method Blank 05-2135 MB	<100	93

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306
Date Extracted: 10/21/15
Date Analyzed: 10/21/15

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
Trip Blank 510306-06	<1	<1	<1	<3	<100	90
Method Blank 05-2135 MB	<1	<1	<1	<3	<100	88

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306
Date Extracted: 10/22/15
Date Analyzed: 10/22/15

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
MW1A-4-14 510306-01	100 x	<250	92
MW1A-4-14B 510306-02 1/1.1	110 x	<280	94
MW3-4-14 510306-03	200 x	<250	102
MW4A-4-14 510306-04	1,200	<250	105
MW7-4-14 510306-05	<50	<250	82
Method Blank 05-2181 MB	<50	<250	99

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14	Client:	Floyd-Snider
Date Received:	10/20/15	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	510306-01
Date Analyzed:	10/22/15	Data File:	102236.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW1A-4-14B	Client:	Floyd-Snider
Date Received:	10/20/15	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	510306-02
Date Analyzed:	10/22/15	Data File:	102237.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW3-4-14	Client:	Floyd-Snider
Date Received:	10/20/15	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	510306-03
Date Analyzed:	10/23/15	Data File:	102238.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	97	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW4A-4-14	Client:	Floyd-Snider
Date Received:	10/20/15	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	510306-04
Date Analyzed:	10/23/15	Data File:	102239.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	94	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	MW7-4-14	Client:	Floyd-Snider
Date Received:	10/20/15	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	510306-05
Date Analyzed:	10/23/15	Data File:	102240.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

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

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	CL-Ellensburg, F&BI 510306
Date Extracted:	10/22/15	Lab ID:	05-2154 mb
Date Analyzed:	10/22/15	Data File:	102222.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	95	63	127
4-Bromofluorobenzene	98	60	133

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306

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

Laboratory Code: 510306-01 (Duplicate)

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

Laboratory Code: 510306-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	ug/L (ppb)	1,000	<100	99	98	53-117	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	91	65-118
Toluene	ug/L (ppb)	50	89	72-122
Ethylbenzene	ug/L (ppb)	50	91	73-126
Xylenes	ug/L (ppb)	150	90	74-118
Gasoline	ug/L (ppb)	1,000	99	69-134

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306

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

Laboratory Code: 510306-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	<50	110	108	50-150	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	103	105	63-142	2

Date of Report: 10/27/15
Date Received: 10/20/15
Project: CL-Ellensburg, F&BI 510306

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

Laboratory Code: 510306-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	50	<0.35	88	87	76-125	1
Toluene	ug/L (ppb)	50	<1	93	93	76-122	0
Ethylbenzene	ug/L (ppb)	50	<1	95	94	69-135	1
m,p-Xylene	ug/L (ppb)	100	<2	97	96	69-135	1
o-Xylene	ug/L (ppb)	50	<1	99	99	60-140	0
Naphthalene	ug/L (ppb)	50	<1	100	100	44-164	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	87	69-134
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	94	77-124
m,p-Xylene	ug/L (ppb)	100	96	83-125
o-Xylene	ug/L (ppb)	50	97	81-121
Naphthalene	ug/L (ppb)	50	96	64-133

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

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

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

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

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

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

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

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

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

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

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

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

SAMPLE CHAIN OF CUSTODY ME 10/20/15

510306

Send Report To: Gabriel Cisneros
Company: Floyd | Snider
Address: 601 Union Street Ste. 600
City, State, ZIP:
Phone #: Fax #:

SAMPLERS (signature): [signature]
PROJECT NAME/NO.: CL-Ellensburg
PO#:
REMARKS: VOCs include only BTEX ~~& Naphthalenes~~ Naphthalene per GC 10/21/15 ME

Page # 1 of 1

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS							Notes
MW1A-4-14	01 A-H	10/20	1000	W	8	X	X		X									
mw1A-4-14B	02 ↓	↓	1030	↓	8	X	X		X									
mw3-4-14	03 A-	↓	1045	↓	17	X	X		X									MS/MSD
mw4A-4-14	04 A-H	↓	1300	↓	8	X	X		X									
mw7-4-14	05 ↓	↓	1200	↓	8	X	X		X									
Trip Blank	06 A-B	↓	—	↓			X	X										

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Gabriel Cisneros	Floyd|Snider	10/20/15	1615
Received by: [signature]	Eric [illegible]	F&B	10/20/15	1615
Relinquished by:				
Received by:				

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

FORMS\COC\COC.DOC

Attachment 3
Baildown Test Charts and Results

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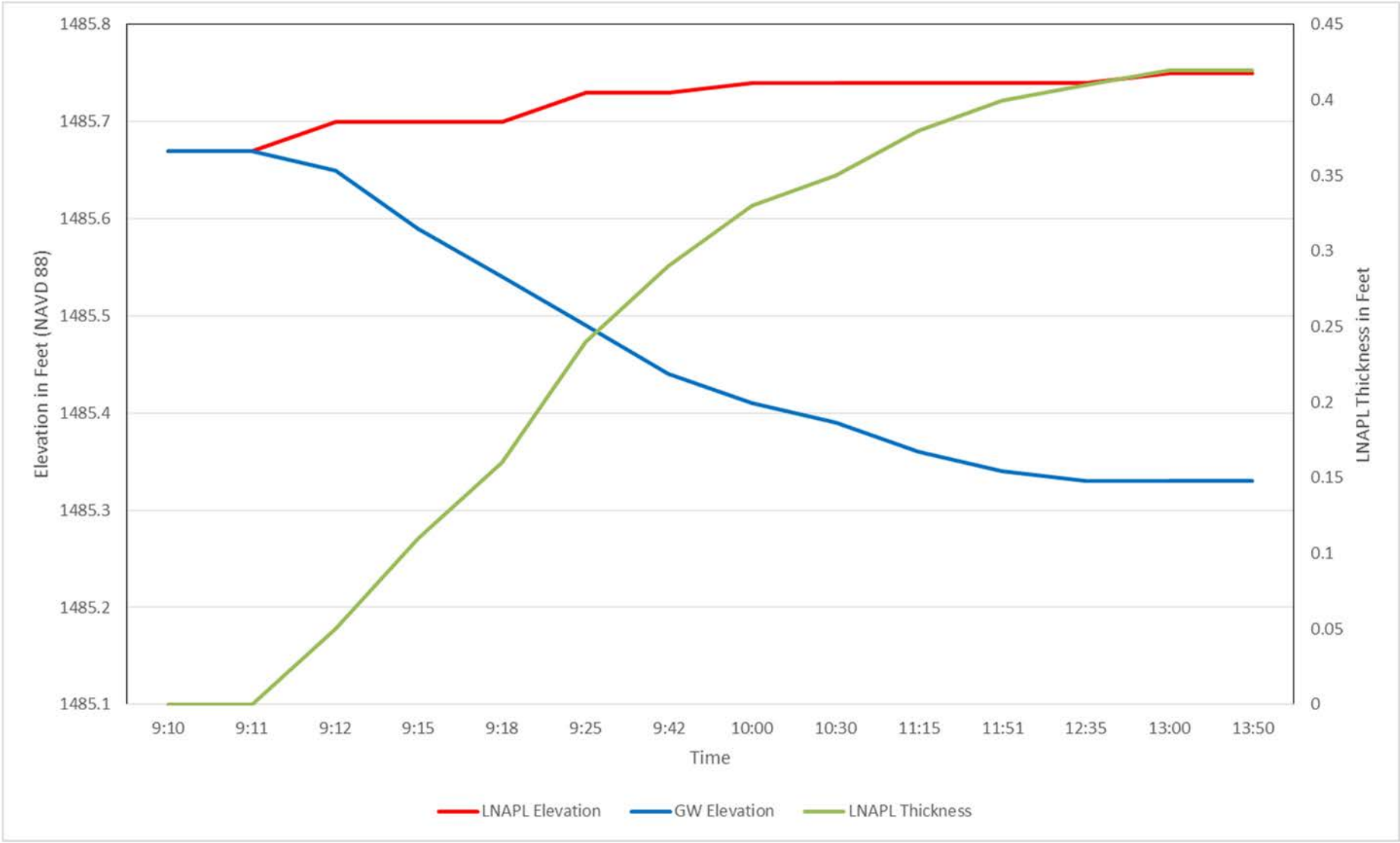
Site Investigation Summary and Supplemental Work Plan
Big B Mini Mart
Ellensburg, Washington

Attachment 3
MW-2 Baildown Test and LNAPL Recovery
July 16, 2015



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Site Investigation Summary and Supplemental Work Plan
Big B Mini Mart
Ellensburg, Washington

Attachment 3
MW-5A Baildown Test and LNAPL Recovery
July 16, 2015