SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

REMEDIAL INVESTIGATION AND CLEANUP ACTION REPORT

Site:
Modera Jackson Site
1803–1905 South Jackson Street
Seattle, Washington

Prepared for:
South Jackson Street Development LLC
1417 116th Avenue Northeast, Suite 208
Bellevue, Washington

Report Date:
January 29, 2018

Remedial Investigation and Cleanup Action Report

Prepared for:

South Jackson Street Development LLC
1417 116th Avenue Northeast, Suite 208
Bellevue, Washington 98004

Modera Jackson Site
1803–1905 South Jackson Street
Seattle, Washington 98144

Project No.: 0811-005

Prepared by:

Clare Tochilin, LG
Project Hydrogeologist

Reviewed by:

Ryan K. Bixby, LG
President

Rob Roberts
Senior Scientist

January 29, 2018

SoundEarth Strategies

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ACRONYMS AND ABBREVIATIONS

ARAR	applicable or relevant and appropriate requirement
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAR	Cleanup Action Report
CFR	Code of Federal Regulations
COC	chemical of concern
CSM	conceptual site model
CUL	cleanup level
Dickson	Dickson Company
DRPH	diesel-range petroleum hydrocarbons
EAI	Environmental Associates, Inc.
Ecology	Washington State Department of Ecology
Elk Heights	Elk Heights Excavation LLC
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
F&BI	Friedman & Bruya, Inc.
FS	feasibility study
GeoTech	GeoTech Consultants, Inc.
GRPH	gasoline-range petroleum hydrocarbons
HASP	Hazardous Waste Operations and Emergency Response
HAZWOPER	Hazardous Waste Operations and Emergency Response
LNAPL	light nonaqueous-phase liquid
mg/kg	milligrams per kilogram
MTCA	Washington State Model Toxics Control Act

ACRONYMS AND ABBREVIATIONS (CONTINUED)

NAVD88	North American Vertical Datum 1988
NWTPH	Northwest Total Petroleum Hydrocarbon
ORPH	oil-range petroleum hydrocarbons
PCB	polychlorinated biphenyl
PCS	petroleum-contaminated soil
PID	photoionization detector
the Property	the property located at 1803 to 1905 South Jackson Street, Seattle, Washington
RAO	remedial action objective
RCW	Revised Code of Washington
REC	recognized environmental condition
RI	remedial investigation
RI/CAR	Remedial Investigation/Cleanup Action Report
the Site	includes soil contaminated with diesel- and oil-range petroleum hydrocarbons beneath the Property
Slotta	Slotta Design and Consulting
SMP	Soil Management Plan for Construction Excavation
SoundEarth	SoundEarth Strategies, Inc.
SPU	Seattle Public Utilities
TEE	Terrestrial Ecological Evaluation
USC	United States Code
USCS	Unified Soil Classification System
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

1.0 INTRODUCTION

SoundEarth Strategies, Inc. (SoundEarth) has prepared this report on behalf of South Jackson Street Development LLC to document the results of the remedial investigation and remedial excavation at the Modera Jackson property, located at 1803-1905 South Jackson Street in Seattle, Washington (the Property; Figure 1). Based on the results of subsurface investigations conducted at the Property, three areas of known or suspected petroleum contamination were identified. Performance and confirmation samples were collected within these areas prior to and during targeted excavation of these areas prior to mass excavation of the Property for redevelopment. Remedial excavation and confirmation sampling were conducted for one additional impacted area discovered during the redevelopment excavation.

The "Site" is defined by the full lateral and vertical extent of contamination exceeding applicable cleanup levels (CULs) that has resulted from releases of petroleum hydrocarbons at the Property. Based on the results of the Site investigations, the chemicals of concern (COCs) identified at the Site are diesel-range petroleum hydrocarbons (DRPH) and oil-range petroleum hydrocarbons (ORPH) in soil beneath the Property. The Site does not extend beyond the Property boundary and all soil exceeding Ecology's MTCA cleanup levels was removed during redevelopment, with no requirements for institutional controls. Therefore, cleanup of the Site was conducted under the guidelines of Model Remedy Option #1 (Ecology Publication No. 15-09-043, September 2015, Revised December 2017).

1.1 PURPOSE AND OBJECTIVE

The objectives of this Remedial Investigation and Cleanup Action Report (RI/CAR) are to summarize data necessary to adequately characterize the Site for selection and implementation of a final remedial action and to document field activities that were conducted as part of the cleanup action described in the Soil Management Plan for Construction Excavation (SMP), dated December 20, 2016 (SoundEarth 2016d). This RI/CAR presents historical information regarding the former use of the Property and surrounding parcels, summarizes the information obtained during the review of historical information, summarizes the scope and findings of each subsurface investigation that has been conducted at the Site, presents a conceptual site model (CSM) to represent the extent of contamination and identified exposure receptors, and describes the cleanup action that has been performed at the Site. The purpose of the cleanup action performed was to, concurrent with excavation and construction activities related to the Property redevelopment, remove and lawfully dispose off-Site all soil contamination on the Property.

1.2 REPORT ORGANIZATION

This RI/CAR is organized into the following sections:

- **Section 2.0, Site Background.** This section provides a description of the Property features and location; a summary of current and historical uses of the Property and adjoining properties; and a description of the Property's environmental setting, including the local meteorology, geology, and hydrology.
- **Section 3.0, Previous Investigations.** This section provides a description of the previous investigations conducted at the Property between 2000 and 2016. A summary of the field work performed and results obtained is included.
- **Section 4.0, Remedial Investigation Field Program.** This section provides a description of the remedial investigation (RI) field work program conducted at the Property by SoundEarth

between June and September 2016, including a summary of the pre-field activities, scope of work, and results, and a discussion of data gaps based on the findings of the RI.

- **Section 5.0, Conceptual Site Model.** This section provides a summary of the CSM derived primarily from the results of the historical research and cumulative investigations performed at the Site, including a discussion of the confirmed and suspected source areas, the chemicals and media of concern, the fate and transport characteristics of the release of hazardous substances, and the potential exposure pathways.
- **Section 6.0, Technical Elements.** This section summarizes the technical elements of the remedial analysis, including the remedial action objectives (RAOs), applicable or relevant and appropriate requirements (ARARs), COCs, media of concern, and applicable cleanup standards.
- **Section 7.0, Model Remedy Cleanup Action Implementation.** This section describes the components of the cleanup activities performed, including site demolition, monitoring well decommissioning, and soil excavation.
- **Section 8.0, Compliance Monitoring.** This section describes the protection, performance, and confirmation monitoring that was conducted as part of the cleanup activities performed. This section also includes a discussion of performance soil sampling results.
- **Section 9.0, Conclusions.** This section presents the conclusions based on the results of the cleanup action.
- **Section 10.0, Limitations.** This section discusses document limitations.
- **Section 11.0, References.** This section lists references cited in this document.

2.0 SITE BACKGROUND

This section provides a description of the Site features and location, a summary of the land use history of the Property and surrounding parcels, the geologic and hydrogeologic setting, and a summary of previous investigations conducted at the Site.

2.1 PROPERTY DESCRIPTION

The Site is defined by the nature and extent of contamination originating from the releases of hazardous substances on and beneath the Property, as discussed in Section 1.0 above (Figure 2).

The Property consists of seven rectangular tax parcels (King County Parcel Nos. 3319501215 [Parcel A], 3319501225 [Parcel B], 3319501235 [Parcel C], 3319501245 [Parcel D], 3319501255 [Parcel E], 3319501265 [Parcel F], and 3319501275 [Parcel G]) that comprise a total of approximately 45,700 square feet (1.04 acres) of land in Township 24 North/Range 4 East/Section 4, Seattle, King County, Washington. Figure 2 depicts a plan view/layout of the Property and shows the locations of the seven parcels. The parcels were formerly occupied by a variety of commercial buildings and warehouses constructed in the 1940s and 1950s. All structures at the Property were demolished as part of the planned redevelopment in January and February 2017.

Potable water and sewer service are provided to the Property by Seattle Public Utilities (SPU). Puget Sound Energy provides natural gas, and Seattle City Light provides electricity to the Property.

2.2 SURROUNDING PARCEL DESCRIPTIONS

2.2.1 North

South Jackson Street runs east–west, north of the Property. There are two parcels to the north of South Jackson Street. The parcel (King County Parcel No. 3319500875) to the northeast is occupied by the Pratt Fine Arts Center. The parcel (King County Parcel No. 3319500785) to the north is occupied by a multi-story residential building owned by Legacy Partners First Hill.

2.2.2 South

South Jackson Place runs east–west, south of the Property, with nine parcels occupied by single- and multi-family residences directly to the south of the Property (King County Parcel Nos. 3319501385, 3319501380, 3319501375, 3319501370, 3319501365, 3319501360, 3319501355, 3319501350, and 3319501345). Three additional single- and multi-family residences are located to the southeast of the Property (King County Parcel Nos. 3319501340, 3319501335, and 3319501326).

2.2.3 East

The east-adjoining parcel (King County Parcel No. 3319501295) contains a single-story restaurant. The current owner of the parcel is Chang Kuan Chun.

2.2.4 West

18th Avenue South runs north–south, west of the Property, with a single-story office building beyond to the west (King County Parcel No. 3319501500). The current owner of the parcel is 1711 South Jackson LLC.

2.3 LAND USE DESIGNATION

The current land use of the Property and surrounding area is a mix of residential, office, and commercial. According to the City of Seattle's zoning map, the Property is zoned as Neighborhood Commercial 3 Pedestrian-40, which is used for residential and commercial purposes. Zoning for the surrounding parcels is Neighborhood Commercial, Commercial, and Lowrise (City of Seattle 2017).

2.4 HISTORICAL LAND USE OF PROPERTY

The historical uses of the Property are summarized in this section. Figure 2 presents current and historical features for the Property and surrounding area.

The Property was initially developed with an automotive repair garage in 1913 on Parcel B. A mixed-use residential and commercial building was constructed on Parcel A in 1915, and a residence was constructed on Parcel D in 1917. The residence was occupied by a sign company between 1920 and 1931 and by a machine shop between 1935 and 1955 (Van's Metal Spinning). In 1958, the residence was removed, and a warehouse was constructed on Parcel D (designated as Building 2 on Figure 2); the warehouse was occupied by Van's Metal Spinning. Van's Metal Spinning also occupied an adjacent wood-framed structure on Parcel C (Building 1) for approximately 20 years. An automotive repair garage operated on Parcel E between at least 1925 and 1950.

Building 3, formerly located on Parcel F, was occupied at various times by the Seattle Store Fixture Company (a cabinet manufacturer), a restaurant, a medical facility, and a community service center. Building 4 on Parcel B was used as a construction company office and for storage. Building 5, which formerly occupied most of Parcel G, was occupied by a geotechnical testing lab in the 1960s and 1970s, an architect in the 1980s, and North Star Electric from 1996 to 2015.

All on-Property structures were demolished as part of the Property redevelopment in January and February 2017.

2.5 HISTORICAL LAND USE OF SURROUNDING PARCELS

This section presents a summary of the historical land use on parcels adjoining and surrounding the Property.

2.5.1 North

The north-adjoining property was first developed with a three-story, masonry-framed apartment building in 1912. Heat was initially provided to the apartments by an oil-burning furnace. A two-story bakery building, also heated by an oil-burning furnace, was constructed north of the apartment building in 1916. An oil storage shed for the bakery was constructed west of the apartments in 1934. The oil shed was demolished prior to 1949 and the properties west of the apartment building were developed with a parking garage for Continental Baking Company in 1950. Tax records indicate that an automotive repair facility operated in the garage and that a 4,000-gallon fuel underground storage tank (UST) was located on the property. The apartments were demolished by 1980, and a parking lot was constructed on the property. The bakery buildings were demolished in 2007, and the existing apartment building (1800 South Jackson Street) was constructed on the property in 2008.

The northeast-adjoining property was initially developed with a three-story, masonry-framed apartment building in 1908. The building was heated by an oil-burning hot water system. The apartments were demolished between 1975 and 1977. A storage warehouse and an automotive repair facility and fueling station (1900 South Jackson Street) for the west-adjoining bakery were constructed on the property in 1977. Building plans indicate the presence of two 10,000-gallon USTs, one 1,000-gallon UST, and a 500-gallon UST on the property. The on-property buildings were converted to classrooms and a woodworking studio for Pratt Fine Arts in 2011.

2.5.2 East

The east-adjoining property was initially developed with a one-story, masonry-framed commercial building (1911 South Jackson) in 1949. Heat was provided by an oil-burning furnace. The building was occupied by an upholstery shop between at least 1951 and 1980. A legal services office and a restaurant have operated in the property since 1996.

2.5.3 South

Three single-family residences were constructed south of the Property between 1904 and 1916. The property south of Parcel B (1810 South King Street) also included a detached garage that was occupied by a soda bottling shop in at least 1916 and by a metal filing and grinding facility between 1940 and 1950. A two-story, wood-framed, stove-heated multi-family residence (1842 South King Street) was constructed on the southeast-adjoining property in 1918. Four additional single-family residences were constructed south of the Property between 1921 and 1929. A detached garage (1830 South King Street) was constructed on the property south of Parcel F in 1932. This garage was occupied by a cabinet shop between at least 1950 and 1969. Five of the residences were heated by oil-burning furnaces by 1956. A wood-framed, electric baseboard-heated apartment building (1822 South King Street) was constructed south of Parcel E in 1988.

2.5.4 West

The west-adjoining property, beyond 18th Avenue South, was developed with the existing masonry-framed commercial building (1723 South Jackson Street) in 1924. The building was occupied by an automotive repair garage between 1925 and 1930, by a machinery repair facility in 1940, and by a grocery in 1944. Heat was provided by a natural gas-burning furnace. A metal fabrication facility operated on the property between 1950 and 1960. The property was occupied by a storage facility between 1966 and 1969 and by an air conditioning facility in 1970.

The northwest-adjoining property, across South Jackson Street, was developed with a single-family residence and a detached garage in 1947. An automotive repair facility operated in the detached garage between at least 1950 and 1969. Both buildings were demolished by 1975. The existing apartment building (1700 South Jackson Street) was constructed on the property in 2008.

The southwest-adjoining property was initially developed with a one-story, masonry-framed, unheated warehouse (415 18th Avenue South) in 1917. A one-story, wood-framed, steam-heated factory was constructed on the northern portion of the property in 1918. The property was occupied by Union Dye Works in 1930, by a rug and upholstery cleaner between 1935 and 1950, and by Norco Cleaners between 1944 and 1951. A food processing facility operated on the property between 1955 and 1960. A fiberglass manufacturer operated on the property between at least 1966 and 1969. Sanborn Maps indicate the presence of a 2,000-gallon UST on the southwestern portion of the property between 1950 and 1969. The buildings were occupied by a plumbing warehouse between 1970 and 1990 and by Jergen's Painting since 1996.

2.5.5 Surrounding Properties

A carpet and upholstery cleaners operated approximately 90 feet southeast of the Property between at least 1980 and 1990. A dry cleaner operated approximately 100 feet east of the Property between 1950 and 1970. An automotive repair facility operated approximately 300 feet north of the Property between at least 1950 and 1969.

2.6 CURRENT AND FUTURE LAND USE

The development project covers the entire footprint of the Property and includes the construction of a multi-story residential building with two levels of underground parking. The bottom level parking garage is designed to an excavation depth of approximately 242.4 feet North American Vertical Datum of 1988 (NAVD88). The Property owner currently estimates that opening of the mixed use project will occur in December 2018.

2.7 ENVIRONMENTAL SETTING

A summary of the environmental setting, including meteorology, topography, and groundwater use for the Site, is provided below.

2.7.1 Meteorology

Climate in the Seattle area is generally mild and experiences moderate seasonal fluctuations in temperature. Average temperatures range from the 60s in the summer to the 40s in the winter.

The warmest month of the year is August, which has an average maximum temperature of 74.90 degrees Fahrenheit, while the coldest month of the year is January, which has an average minimum temperature of 36.00 degrees Fahrenheit.

The annual average rainfall in the Seattle area is 38.25 inches, with December as the wettest month of the year when the area receives an average rainfall total of 6.06 inches (IDcide 2017). The prevailing wind direction in the Seattle area is from the south to southwest in winter and spring, and southwest to north in the summer and fall (Western Regional Climate Center 2017).

The main underlying sources for ambient air pollutants in Seattle are motor vehicle traffic and residential wood burning (PSCAA 2011).

2.7.2 Topography

The Site lies within the Puget Trough or Lowland portion of the Pacific Border Physiographic Province (USGS 2011). The Puget Lowland is a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains and Willapa Hills to the west. In the north, the San Juan Islands form the division between the Puget Lowland and the Strait of Georgia in British Columbia. The region is characterized by roughly north–south-oriented valleys and ridges, with the ridges that locally form an upland plain at elevations of up to about 500 feet above sea level. The moderately to steeply sloped ridges are separated by swales, which are often occupied by wetlands, streams, and lakes. The physiographic nature of the Puget Lowland was prominently formed by the last retreat of the Vashon Stade of the Fraser Glaciation, which is estimated to have occurred between 14,000 and 18,000 years before present (Waitt and Thorson 1983).

Elevations at the Property range from 245 to 268 feet above mean sea level, sloping upwards from west to east. Lake Washington is approximately 1 mile east of the Site.

2.7.3 Groundwater Use

According to the Ecology Water Well Logs database, there are no water supply wells in the vicinity of the Site (Ecology 2017).

SPU provides the potable water supply to the City of Seattle. SPU’s main source of water is derived from surface water reservoirs located within the Cedar and South Fork Tolt River watersheds.

2.8 GEOLOGIC AND HYDROGEOLOGIC SETTING

This section summarizes the regional geology and hydrogeology in the Site vicinity and the geologic and hydrogeologic conditions encountered beneath the Site.

2.8.1 Regional Geology and Hydrogeology

According to *The Geologic Map of Seattle—A Progress Report* (Troost et al. 2005), the surficial geology in the vicinity of the Property consists of deposits corresponding to the Vashon Stade of the Fraser Glaciation and pre-Fraser glacial and interglacial periods. The surficial deposits in the immediate vicinity of the Property have been mapped as Vashon till. These deposits consist of a dense mixture of silt, sand, gravel, and clay, which are typically characterized by relatively low vertical hydraulic conductivity.

The youngest pre-Fraser deposits in the Seattle area, known as the Olympia beds, were deposited during the last interglacial period, approximately 18,000 to 70,000 years ago. The Olympia beds consist of very dense, fine to medium, clean to silty sands and intermittent gravel channel deposits, interbedded with hard silts and peats (Troost and Booth 2008). Organic matter and localized iron-oxide horizons are common. The Olympia beds have known thicknesses of up to 80 feet. Beneath the Olympia beds are various older deposits of glacial and nonglacial origin. In general, deposits from older interglacial and glacial periods are similar to deposits from the most recent glacial cycle, due to similar topographic and climactic conditions (Troost and Booth 2008).

The Vashon ice-contact deposits in the vicinity of the Site are generally discontinuous, highly variable in thickness and lateral extent, and consist of loose to very dense, intermixed glacial till, and glacial outwash deposits. The till typically consists of sandy silts with gravel. The outwash consists of sands and gravels, with variable amounts of silt (Troost et al. 2005).

The Vashon advance outwash deposits outcrop to the northwest of the Site and are generally discontinuous and consist of loose to very dense layered sands and gravels, which are generally well-sorted (poorly graded). Layers of silty sands and silts are less common. The Vashon recessional outwash deposits, which outcrop to the east of the Property, consist of loose to dense, stratified sand and gravel with less common silty sand and silt. (Troost et al. 2005).

2.8.2 Site Geology

Based on Troost et al. 2005, the surficial deposits in the immediate vicinity of the Site have been mapped as Vashon till, consisting of compact silt, sand, and subrounded gravels that were glacially transported and deposited under ice.

Based on the results of previous investigations at the Site, the Site is underlain by loose to medium dense fill soil to depths ranging from approximately 1 to 5 feet below ground surface (bgs), underlain by medium to very dense, brown, tan or mottled orange-brown silty sand, sandy silt, or gravelly sand and/or silt to a depth of at least 38 feet bgs.

2.8.3 Site Hydrology

The glacial and nonglacial deposits beneath the Seattle area comprise the unconsolidated Puget Sound aquifer system, which can extend from ground surface to depths of more than 3,000 feet. Coarse-grained units within this sequence generally function as aquifers, and alternate at some scale with fine-grained units which function as aquitards (Vaccaro et al. 1998). Above local or regional water table aquifers, discontinuous perched groundwater may be present in coarse-grained intervals seated above fine-grained intervals. Below the regional water table, the alternating pattern of coarse- and fine-grained units results in a series of confined aquifers. Regional groundwater flow is generally from topographic highs toward major surface water bodies, such as Puget Sound, Lake Union, Lake Washington Ship Canal, and Salmon Bay. Vertical hydraulic gradients are typically upward near the major surface water bodies, and downward inland (Floyd Snider McCarthy Team 2003, Vaccaro et al. 1998). Regional groundwater flow typically discharges to the closest major surface water body.

Based on inference from local topography, drainage patterns, and surface water flow, it appears that shallow-seated groundwater in the vicinity of the Property flows in a general southwesterly direction. Groundwater was encountered during the 2016 SoundEarth Phase II subsurface investigation while drilling in hollow-stem auger boring DB01 on Parcel E at a depth of approximately 33 feet bgs and in hollow-stem auger boring DB02 on Parcel B/C at a depth of approximately 19 feet bgs (the surface elevation at DB02 is approximately 11 feet lower than the elevation at DB01). Groundwater was encountered in hollow-stem auger borings DB04 and DB05 on Parcel A at depths of 36 and 34 feet bgs, respectively. At the time of sampling, depth to groundwater in monitoring well MW01 was 34.35 feet below the top of well casing.

3.0 PREVIOUS INVESTIGATIONS

This section summarizes activities and results from previous investigations conducted by SoundEarth and others at the Site. The information below includes all known sampling data collected between 2000 and 2016 at the Site. Approximate soil boring and monitoring well locations are shown on Figure 2. Soil and groundwater analytical results are summarized in Tables 1 and 2 and shown on Figures 3 and 4.

3.1 ENVIRONMENTAL ASSOCIATES, INC. 2000 PHASE I ENVIRONMENTAL AUDIT

In August 2000, Environmental Associates, Inc. (EAI) completed a Phase I Environmental Audit of Parcels B, C, and D at the Property (EAI 2000). A gasoline fuel pump was observed along the north wall of the storage shed on Parcel B. A 1,000-gallon gasoline UST, a 1,000-gallon diesel UST, and a 300-gallon heating oil UST were removed from Parcels B and C by EAI in June 2000. Soil samples were collected from the UST excavations and submitted for analysis. Gasoline-range petroleum hydrocarbons (GRPH); DRPH; ORPH; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reportedly not detected in the soil samples collected from the UST excavations. However, the tank removal report detailing the sampling locations and depths was not included as an attachment to the Phase I report or otherwise available to SoundEarth for review.

The EAI report also identified the following historical surface releases of ORPH on the Property:

- Oil staining on the wall and ground surface on the southwestern portion of Building 2, due to a leaking press machine.
- Oil-staining beneath a horse trailer containing 55-gallon drums of oil stored on Parcel B.
- Oil-soaked sawdust stored on Parcel B.

Petroleum-contaminated soil (PCS) was removed from the area beneath the horse trailer (4 cubic yards) and in the vicinity of the oil-stained surface next to Building 2 (also 4 cubic yards). Approximately 0.2 cubic yard of PCS was estimated by EAI to remain on the Property beneath Building 2. This material was not removed due to concerns regarding the structural stability of the building foundation. A report detailing the two cleanup actions was not discussed in the EAI Phase I report or provided to SoundEarth for review.

3.2 EAI 2011 PHASE I ENVIRONMENTAL SITE ASSESSMENT

EAI completed a Phase I Environmental Site Assessment (ESA) of Parcel D in 2011. This Phase I ESA identified the following recognized environmental condition (REC) for the Property (EAI 2011):

- Shallow impacts to surface soil by petroleum products.

3.3 SLOTTA DESIGN AND CONSULTING 2012 SUBSURFACE INVESTIGATION REPORT

In October 2012, Slotta Design and Consulting (Slotta) conducted a subsurface investigation on Parcels B and C (Slotta 2012). Five borings were advanced to depths between 4 and 9 feet bgs (SB-1 through SB-5; Figure 2). Soil samples were collected and submitted for laboratory analysis of DRPH and ORPH. One sample was also tested for GRPH and BTEX, and one sample was analyzed for mercury, arsenic, chromium, lead, polychlorinated biphenyls (PCBs), and solvents. None of the samples contained concentrations of the indicated constituents above their respective Washington State Model Toxic Control Act (MTCA) Method A CULs. However, a sample collected from boring SB-5 at a depth of 4 feet in the Building 1 hydraulic press room contained 110 milligrams per kilogram (mg/kg) DRPH and 260 mg/kg ORPH (both below the MTCA Method A CUL of 2,000 mg/kg, but above Washington State Department of Ecology's (Ecology) Category 1 soil classification for disposal purposes).

3.4 GEOTECH CONSULTANTS, INC. 2012 PRELIMINARY GEOTECHNICAL CONSIDERATIONS MEMORANDUM

According to a December 5, 2012, memorandum to Isola Homes, GeoTech Consultants, Inc. (GeoTech) advanced six geotechnical borings (B-1 through B-6) across the Property to depths of up to 31 feet bgs (GeoTech 2012). One of the borings (B-5) encountered what was reported to be petroleum-impacted soil at an approximate depth of 6 to 8 feet. The boring was advanced near the former 300-gallon heating oil tank location at Building 1. A sample was not collected for chemical analysis during this investigation.

3.5 SOUNDEARTH 2012 PHASE I ESA

SoundEarth completed a Phase I ESA of Parcels A through F in 2012 (SoundEarth 2012). This Phase I ESA identified the following RECs:

- The historical operation of an automotive repair facility on the Property.
- The use and storage of petroleum products on the Property and the presence of petroleum-impacted soil at Building 1 and Building 2.
- Discharge of process water to a potential French drain on the Property (reportedly on the south end of Building 2).
- The current and historical operation of a metal works on the Property (Vans Metal Spinning).
- The historical operation of cabinet shops on the Property.

3.6 SOUNDEARTH 2012 PHASE II ESA

In 2012, SoundEarth oversaw the advancement of ten direct-push probe borings (P01 through P10) on Parcels B, C, D, and E (SoundEarth 2013). Borings were advanced to depths between 10 and 20 feet bgs; boring locations are indicated on Figure 2. None of the samples submitted for analysis contained concentrations of GRPH, DRPH, ORPH, BTEX, or chlorinated volatile organic compounds that exceeded the laboratory's lower reporting limit. Concentrations of arsenic, barium, chromium, and lead were detected in two composite samples. The identified metals concentrations were typical of or below natural background levels for the Puget Sound area (Ecology 1994). Groundwater was not encountered during the investigation. No indications of a French drain were encountered in two borings advanced on the south side of Building 2.

3.7 SOUNDEARTH 2015 PHASE I ESA

SoundEarth completed a Phase I ESA of Parcels A through G in 2015 (SoundEarth 2015). This Phase I ESA identified the following RECs:

- The historical operation of an automotive repair facility on the Property.
- The use and storage of petroleum products on the Property and the presence of petroleum-impacted soil at Building 1 and Building 2.
- Discharge of process water to a potential French drain on the Property.
- The historical operation of a metal works on the Property.

3.8 SOUNDEARTH 2016 PHASE I ESA

SoundEarth completed a Phase I ESA of Parcels A through G in October 2016 (SoundEarth 2016c). Based on the previous Phase II work conducted at the Property, the following issues of potential environmental concern were identified:

- The historical use and storage of petroleum products on the Property and the presence of petroleum-impacted soil at Buildings 1 and 2 (listed as a Historical REC with de minimis quantities of petroleum-impacted soil).
- The historical operation of an automotive repair facility on the Property.
- The use and storage of petroleum products on the Property and the presence of petroleum-impacted soil at Building 1 and Building 2.
- Discharge of process water to a potential French drain on the Property.
- The historical operation of a metal works on the Property.
- The historical operation of a cabinet shop on the Property.
- The historical operation of a cleaning facility on the southwest-adjoining property.
- The historical operation of automotive repair facilities on the north-adjoining properties.

4.0 REMEDIAL INVESTIGATION FIELD PROGRAM

SoundEarth conducted the RI field work at the Property between June and September 2016 (SoundEarth 2016a and 2016b). Soil boring and monitoring well locations were selected to address the data gaps identified during previous investigations and to assess previously uninvestigated parcels of the Property. The following sections summarize the results of the RI field work. The locations of borings and groundwater monitoring wells are shown on Figure 2. The soil and groundwater analytical results are shown on Figures 3 and 4 and in Tables 1 and 2.

A summary of the scope of work completed for each work element, as well as the results of the RI activities, are provided below.

4.1 PRE-FIELD ACTIVITIES

Pre-field activities for the RI included the following:

- SoundEarth created a health and safety plan (HASP) for the Property in accordance with MTCA and Part 1910.120 of Title 29 of the Code of Federal Regulations (29 CFR 1910.120) before initiating field activities.
- SoundEarth prepared work plans for the field activities to be conducted at the Property.
- Applied Professional Services, Inc. of Seattle, Washington, performed private utility locate surveys before each subsurface investigation phase and located utilities in the vicinity of the proposed boring locations.

4.2 SOIL BORING ADVANCEMENT AND SAMPLING

This work element included the advancement of direct-push and hollow-stem auger borings between June and September 2016 and the collection of soil samples at various depths in each boring. The first phase of field work, consisting of 17 direct-push borings and two hollow-stem auger borings, was conducted in June 2016. The second phase of work, consisting of three additional hollow-stem auger borings, was conducted in September 2016. The borings were advanced in areas where localized petroleum hydrocarbon impacts had previously been encountered (former hydraulic press and UST areas), metal working areas, the former auto repair building, and in previously unassessed areas of Parcels A, E, F, and G. Boring locations are shown on Figure 2. Cross sections showing subsurface soil profile characteristics, historical groundwater elevation ranges, and references to analytical results are presented on Figures 5 and 6. Boring logs from the subsurface investigations are included in Appendix A.

On June 1 and 2, 2016, Standard Environmental Probe of Tumwater, Washington, under the direction of a licensed SoundEarth geologist, advanced 17 push-probe borings on the Property (B01 through B17). The borings were advanced to depths between 4 and 13 feet bgs at the locations shown on Figure 2. Interior borings were advanced inside Buildings 1, 2, 3, and 5 using a limited-access hand-held roto-hammer, and exterior borings were advanced using a truck-mounted hydraulic ram. After the maximum depth was achieved in each sample interval, relatively undisturbed discrete soil samples were collected.

On June 21, 2016, Cascade Drilling of Woodinville, Washington, under the direction of a licensed SoundEarth geologist, advanced two hollow-stem auger borings on Parcels E and C (borings DB01 and DB02, respectively) to assess groundwater conditions beneath the Property. The borings were advanced to depths of 25 (DB02) and 38 feet (DB01) bgs at the locations shown on Figure 2, and soil samples were collected at 5-foot intervals in each of the borings.

To further assess groundwater conditions beneath the Property, three additional hollow-stem auger borings were advanced on Parcels A (DB04 and DB05) and D (DB03) by Cascade Drilling on September 2, 2016. The borings were advanced to depths of 36.5 feet bgs at the locations shown on Figure 2, and soil samples were collected at 5-foot intervals in each of the borings.

All soil samples were described in accordance with the Unified Soil Classification System (USCS) and were screened in the field for potential evidence of contamination using visual observations and notations of odor, and by conducting headspace analysis using a photoionization detector (PID) to detect the presence of volatile organic vapors. The USCS symbol, visual and olfactory notations for the samples, and PID readings were recorded on boring log forms, copies of which are provided as Appendix A.

Soil samples to be analyzed for volatile organic compounds (VOCs) were collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A. Additional soil samples were collected using 4-ounce jars. Soil containers were labeled with a unique sample ID, placed on ice in a cooler, and delivered to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington, under standard chain-of-custody protocols for laboratory analysis. Based on boring locations, screening results, sampling depths, and observed soil characteristics, selected soil samples were submitted for chemical analysis, including:

- DRPH and ORPH by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Dx
- GRPH by Method NWTPH-Gx
- BTEX by EPA Methods 8021B or 8260C
- VOCs by EPA Method 8260C
- MTCA 5 Metals (arsenic, lead, cadmium, chromium, and mercury) by EPA Method 200.8
- PCBs by EPA Method 8082A

4.2.1 Soil Results

Based on observations presented in boring logs provided in Appendix A, shallow soil conditions on the Property generally consisted of loose to medium dense fill soil from the ground surface to depths ranging from approximately 1 to 5 feet bgs. Fill soil generally consisted of silty sand with varying amounts of gravel and trace amounts of brick and coal fragments. Observed native soil conditions below the fill material generally consisted of medium to very dense, brown, tan, gray, or mottled orange-brown silty sand, sandy silt, or gravelly sand and/or silt to the maximum depths of soil sampling. Groundwater was encountered at depths between 19 and 36 feet bgs at the time of drilling in borings DB01, DB02, DB04, and DB05.

Field screening revealed no obvious visual or olfactory indications of petroleum hydrocarbon contamination and no elevated PID readings in any of the recovered soil samples from borings B01 through B17 or DB01 through DB05.

Analytical results for soil samples indicated the following:

- Concentrations of GRPH, DRPH, ORPH, BTEX, VOCs, and PCBs were not detected above laboratory reporting limits in any of the analyzed soil samples.
- Concentrations of arsenic and chromium were detected in soil samples collected at 4 feet bgs in borings B02, B03, B12, B13, and B16 at concentrations below their respective MTCA Method A CULs for Unrestricted Land Uses. Concentrations of lead were detected in soil samples collected at 4 feet bgs in borings B02, B03, B12, and B16 at concentrations below their respective MTCA Method A CULs for Unrestricted Land Uses. The concentrations were generally consistent with natural background levels for the Puget Sound area (Ecology 1994). Cadmium and mercury were not detected at concentrations above the laboratory reporting limits in any of the analyzed samples.

Laboratory analytical reports are provided in Appendix B.

4.3 MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

Groundwater was not encountered in any of the push-probe borings or in hollow-stem auger boring DB03. Groundwater was encountered during drilling in hollow-stem auger boring DB01 at a depth of approximately 33 feet bgs, in boring DB02 at a depth of approximately 19 feet, in boring DB04 at a depth of approximately 36 feet bgs, and in boring DB05 at a depth of approximately 34 feet bgs. Temporary monitoring wells consisting of 1-inch-diameter PVC casing with a 5-foot screened interval were installed in borings DB02, DB04, and DB05. Reconnaissance groundwater samples were collected from each of the temporary wells using a bailer, and the well casings were removed from each boring after sample collection. Borings DB02, DB04, and DB05 were subsequently decommissioned by filling the boreholes with hydrated bentonite chips and sealing with concrete to grade, in accordance with the procedures specified in Chapter 173-360 of the Washington Administrative Code, Minimum Standards for Construction and Maintenance of Wells (WAC 173-360).

Monitoring well MW01 was installed in boring DB01 on the northeastern portion of Parcel E in an effort to evaluate the potential risk of impacts from a UST site located across South Jackson Street to the northeast (Continental Baking). MW01 was constructed of 2-inch-diameter blank PVC casing flush-threaded to 0.010-inch slotted well screen from 28 to 38 feet bgs. The bottom of the well was fitted with a threaded PVC bottom cap, and the top of the well was fitted with a locking compression-fit well cap. The annulus of the monitoring well was filled with #2/12 silica sand to 2 feet above the top of the screened interval. A bentonite seal with a minimum thickness of 1 foot was installed above the sand pack. MW01 was completed at the surface with a flush-mounted, traffic-rated well box set in concrete. MW01 was developed with the use of a submersible whale pump. Monitoring well development consisted of surging and purging the well until approximately 35 gallons of water had been removed and the groundwater no longer appeared turbid. Turbidity was measured visually by field personnel conducting development activities.

On June 23, 2016, SoundEarth collected a groundwater sample from MW01 in accordance with EPA's *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (1996) a minimum of 24 hours following well development. Purging and sampling were performed using a bladder pump and dedicated polyethylene tubing. During purging, water quality parameters that were monitored and recorded included temperature, pH, specific conductivity, dissolved oxygen, turbidity, and oxidation-reduction potential. The well was purged until all parameters had stabilized.

After collection, reconnaissance and low-flow groundwater samples were labeled with a unique sample ID, placed on ice in a cooler, and delivered to F&BI under standard chain-of-custody protocols for laboratory analysis. Non-dedicated field sampling equipment was cleaned and decontaminated between uses and before leaving the Property. Decontamination wash water and purge water were contained on the Property in labeled 55-gallon drums, pending waste profiling and proper disposal.

Groundwater samples from DB01/MW01, DB02, DB04, and DB05 were submitted for chemical analysis of the following:

- DRPH and ORPH by Method NWTPH-Dx
- GRPH by Method NWTPH-Gx
- BTEX by EPA Method 8021B

- VOCs by EPA Method 8260C
- MTCA 5 metals by EPA Method 200.8

4.3.1 Groundwater Results

At the time of sampling, depth to groundwater in MW01 was 34.35 feet below the top of well casing.

Analytical results for the reconnaissance groundwater samples indicated that concentrations of GRPH, DRPH, ORPH, BTEX, and VOCs did not exceed the applicable MTCA Method A CULs in the samples collected from borings DB02, DB04, and DB05. Total arsenic, chromium, and lead were detected in reconnaissance groundwater samples from DB04 and/or DB05 at concentrations exceeding the applicable cleanup levels. However, these elevated concentrations are the result of turbidity in the reconnaissance groundwater samples, as commonly occurs in groundwater samples that are not collected from a fully developed, permanent groundwater monitoring well. They are not interpreted to be an indication of metals contamination in groundwater beneath the Property. As evidence of this conclusion, arsenic, chromium, and lead were detected in soils at concentrations that were an order of magnitude below their respective CULs, which is typical of background levels for the Puget Sound region (Ecology 1994). Additionally, there were no identified releases of metals at the Site. To confirm this conclusion, the reconnaissance groundwater samples were analyzed for dissolved arsenic, chromium, and lead, and the results demonstrated that the samples did not contain concentrations in excess of the applicable CULs (Table 2). Accordingly, for the purposes of this RI/CAR, metals in groundwater are not considered COCs for the Site.

Analytical results for the groundwater sample collected from monitoring well MW01 indicated that concentrations of GRPH, DRPH, ORPH, and BTEX were not detected. Laboratory detection limits were well below the applicable MTCA Method A CULs. Laboratory analytical results are provided in Appendix B.

4.4 SUMMARY OF DATA GAPS

Data gaps remaining after previous investigations performed by SoundEarth and others included the extents of limited areas of known or suspected petroleum-impacted soil in the vicinity of the former heating oil UST on Parcel B, at Slotta boring SB05 on Parcel C, and in the former hydraulic press area near the southern common boundary of Parcels C and D. These areas were identified as potentially impacted areas prior to excavation activities, and the data gaps did not significantly impact the identification of a preferred remedial alternative for cleanup at the Property.

5.0 CONCEPTUAL SITE MODEL

A CSM identifies confirmed and suspected source areas of hazardous substances, affected environmental media, fate and transport mechanisms, environmental media of potential concern, and exposure pathways for potential receptors. The CSM is the basis for developing technically feasible cleanup alternatives from which a final cleanup action approach is selected. However, as noted previously, this Site was remediated as a Model Remedy site Option #1 (Ecology, 2017a), and therefore a feasibility study was not required. A preliminary exposure assessment, based on a zoning designation of residential and commercial use, is presented on Figure 7.

This section discusses the components of the CSM developed for the Site, based on completion of the various phases of investigation conducted by SoundEarth and others. Included in the following sections is a discussion of the confirmed and suspected source areas, affected environmental media, fate and transport mechanisms, COCs, exposure pathways and potential receptors, the Terrestrial Ecological Evaluation (TEE), and the CSM summary.

5.1 CONFIRMED AND SUSPECTED SOURCE AREAS

The source areas are the locations of COC releases that have affected soil quality at the Site. The series of investigations conducted at the Site between 2000 and 2016 (i.e., prior to commencement of redevelopment activities) identified three locations of known or suspected limited areas of petroleum-impacted soil on the Property. These areas included the following:

- **Area 1**. GeoTech advanced geotechnical boring B-5 on Parcel B near the former 300-gallon heating oil tank location at Building 1. During the drilling of geotechnical boring B-5, GeoTech noted the presence of soil exhibiting petroleum odors at depths of 6 to 8 feet bgs. A soil sample was not collected for chemical analysis. Four other borings in this immediate area did not encounter indications of petroleum impacts.
- **Area 2**. A soil sample collected from Slotta boring SB-5 at a depth of 4 feet bgs in the Building 1 hydraulic press room contained 110 mg/kg of DRPH and 260 mg/kg of ORPH. Both concentrations are below the MTCA Method A level of 2,000 mg/kg, but are considered by Ecology as "Category 2" soil for disposal purposes. Two other soil borings advanced in the hydraulic press area did not encounter indications of petroleum impacts.
- **Area 3**. During a Phase I Environmental Audit conducted in 2000 by EAI, oil-staining was observed on the wall and ground surface on the southwestern portion of Building 2. The staining was due to a leaking press machine. A remedial excavation of impacted soil was conducted by EAI outside the building, adjacent to the leak. However, approximately 0.2 cubic yards of PCS were estimated by EAI to remain beneath Building 2. This material was not removed due to concerns regarding the structural stability of the building foundation.

These soil impacts were determined to be localized and bounded by nearby borings in which petroleum hydrocarbons were not detected or observed during drilling.

5.2 CHEMICALS AND MEDIA OF CONCERN

Based on the findings from the investigations conducted at the Site as well as performance samples collected during the remedial excavation activities, the COCs for the Site are DRPH and ORPH. Soil is the only medium of concern. Elevated concentrations of COCs were not detected in groundwater samples collected at the Site and accordingly, groundwater is not deemed a medium of concern.

5.3 CONTAMINANT FATE AND TRANSPORT

The fate and transport of contaminants in the environment affect their migration, mobility, and persistence. Within the medium of concern (soil), the transport of petroleum hydrocarbons is largely dependent on the texture of the soil. The fate of the petroleum hydrocarbons is dependent on their chemical properties, and the biological and abiological processes in the media of concern.

5.3.1 Environmental Fate of Petroleum Hydrocarbons in the Subsurface

The most significant fate process for petroleum hydrocarbons is biodegradation (i.e., natural attenuation). Once petroleum hydrocarbons enter the subsurface, natural attenuation of the compound begins. The natural attenuation processes include intrinsic abiotic and biotic degradation in soil, and adsorption onto soil particles. Both abiotic and biotic processes degrade petroleum hydrocarbons to carbon dioxide, assuming the appropriate geochemical conditions are present in soil. Adsorption onto soil particles retards the vertical and lateral migration of petroleum hydrocarbons, and the residual saturation capacity of soil affects the vertical migration of LNAPL. Evidence for natural attenuation processes in soil would include significant shrinking in the magnitude and extent of the petroleum impacts.

5.3.2 Transport Mechanism Affecting the Distribution of Petroleum Hydrocarbons in the Subsurface

The transportation and distribution of petroleum hydrocarbons in the vadose zone beneath the Site is controlled by a number of factors, including the following:

- The mass of contamination released from each source area.
- Adsorption and desorption of contaminants from soil particles and organic matter. Adsorption is a function of moisture content of the soil, the organic-carbon partitioning coefficient for the contaminants, and the concentration of organic matter in the soil.
- The diffusive transport of contaminated vapors from areas of high to low concentrations.
- Advective transport of vapors due to changes in pressure and temperature gradients.
- Depth to groundwater.

The transportation and distribution of petroleum hydrocarbons in groundwater was not evaluated since groundwater is not a medium of concern for the Site (as discussed in Section 4.3.1).

5.4 EXPOSURE PATHWAYS AND POTENTIAL RECEPTORS

The preliminary exposure assessment identifies potential receptors for exposure pathways for environmental media of potential concern from contaminant fate and transport mechanisms. Potential receptors at risk from exposure associated with the presence of COCs at the Site are human and ecological receptors. The objective of the preliminary exposure assessment is to assess the completeness of exposure pathways from environmental media of potential concern and associated contaminant fate and transport mechanisms for the potential receptors for the Site. The results from the preliminary exposure assessment will assist with the evaluation of potential feasible cleanup alternatives that are protective of the potential receptors identified as complete. The preliminary exposure assessment for each exposure pathway and associated environmental media of potential concern is summarized below by affected environmental media. The exposure pathway assessment for the Site is depicted on Figure 7.

5.4.1 Soil

Soil with concentrations of petroleum hydrocarbons exceeding applicable MTCA Method A CULs may present a potential exposure pathway to human and/or ecological receptors.

The principal contaminant fate and transport mechanisms for soil at the Site include adsorption, volatilization, leaching, advection, dispersion, diffusion, and biodegradation (Figure 7). The potential exposure pathways for soil at the Site include direct contact with soil, volatilization to soil vapor, soil leaching to groundwater, and LNAPL associated with soil partitioning to groundwater. The human consumption of drinking water is not an applicable potential receptor for the exposure pathway for soil at the Site. The potential exposure pathways for soil (before and during redevelopment prior to completion of the final remedy) are discussed further in the sections below:

- **Direct Contact (Dermal Contact and Ingestion) with Subsurface Adsorbed-Phase Contaminated Soil.** This exposure pathway is complete for subsurface soil via dermal contact or ingestion. The standard point of compliance for the direct-contact exposure pathway for soil is 15 feet bgs for human health, which is within the depth to be excavated during Property redevelopment activities (WAC 173-340-740[6][d] and WAC 173-340-7490[4][b]). COCs above the preliminary CULs are present in shallow subsurface soil within 15 feet bgs at the Site. This exposure pathway may be complete for environmental field personnel and construction and utility workers who may come in contact with contaminated soil on the Property during redevelopment excavation activities.
- **Inhalation of Airborne Soil.** The release mechanism for this exposure pathway is the inhalation of airborne soil particles during excavation and construction activities on the Property. This exposure pathway could be complete for environmental field personnel and construction and utility workers during redevelopment.
- **Inhalation of Vapors.** The release mechanism for this exposure pathway is volatilization. This exposure pathway may be complete for environmental, construction, and utility workers during redevelopment of the Property.
- **Leaching to Groundwater.** This exposure pathway is considered incomplete for potential receptors based on the fact that elevated concentrations of COCs have not been detected in groundwater beneath the Site, indicating that leaching to groundwater has not occurred.

5.4.2 Groundwater

Based on the results of the subsurface investigations, COCs are not present in groundwater beneath the Site. Therefore, the groundwater pathway is considered incomplete.

5.5 TERRESTRIAL ECOLOGICAL EVALUATION

A TEE is required by WAC 173-340-7940 at locations where a release of a hazardous substance to soil has occurred. The TEE is intended to assess potential risk to plants and animals that live entirely or primarily on affected land.

The Site qualifies for an exclusion from further evaluation based on point of compliance (WAC 173-340-7491 [1][a]). Redevelopment of the Site included the complete removal of contaminated soil, which effectively eliminates risk to plants and animals. A copy of the TEE prepared for the Site is included in Appendix C.

5.6 CONCEPTUAL SITE MODEL SUMMARY

Soil beneath the Property contained concentrations of DRPH and ORPH that exceeded applicable MTCA Method A CULs. There are two general types of receptors that are potentially at risk from exposure associated with the presence of petroleum hydrocarbons in soil at the Property. The receptors include terrestrial wildlife and humans. The Property qualifies for a TEE exclusion based on WAC 173-340-7491.

The potential exposure pathways for soil at the Property included direct contact, inhalation of airborne soil, and inhalation of vapors. The primary receptors for these exposure pathways include environmental field personnel, construction workers, utility workers, and residents of the planned residential building. During redevelopment of the Property, direct contact with soil, inhalation of airborne soil, and inhalation of vapors pathways are potentially complete for construction, utility, and environmental workers. At the completion of the redevelopment, source removal will eliminate the direct-contact and both inhalation pathways at the Property for commercial workers and residents.

6.0 TECHNICAL ELEMENTS

The RAOs developed for the Property were used to define the technical elements for the screening evaluation and to select the remedial action for the Property. In accordance with cleanup of the Site under Ecology's Model Remedy Option #1, an FS was not conducted for the Site because all known PCS was to be removed as part of the Property redevelopment. Furthermore, groundwater beneath the Site is not impacted, and soil contamination has not migrated off the Property.

6.1 REMEDIAL ACTION OBJECTIVES

RAOs are statements of the goals that a remedial alternative should achieve in order to be retained for further consideration as part of a Feasibility Study (FS) or Model Remedy. The purpose of establishing RAOs for a site is to provide remedial alternatives that are protective of human health and the environment (WAC 173-340-350). In addition, RAOs are designated in order to:

- Implement administrative principles for cleanup (WAC 173-340-130).
- Meet the requirements, procedures, and expectations for conducting a Model Remedy or FS, and developing cleanup action alternatives, as discussed in WAC 173-340-350 through 173-340-370.
- Develop CULs (WAC 173-340-700 through 173-340-760) and remedial alternatives that are protective of human health and the environment.

In particular, RAOs must address the following threshold requirements from WAC 173-340:

- Protect human health and the environment.
- Comply with CULs.
- Comply with applicable state and federal laws.
- Provide for compliance monitoring.

The RAOs for the Property are to mitigate potential exposure pathways for human and terrestrial receptors and to comply with ARARs and applicable CULs to demonstrate compliance and obtain a Site-wide No Further Action determination from PLIA. The implementation of the selected cleanup action alternative will address the potential exposure pathways to protect human health and the environment. Compliance monitoring will demonstrate that cleanup standards have been met at the established points of compliance.

6.2 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Under WAC 173-340-350 and 173-340-710, applicable requirements include regulatory cleanup standards, standards of control, and other environmental requirements, criteria, or limitations established under state or federal law that specifically address a contaminant, remedial action, location, or other conditions at a site.

MTCA defines relevant and appropriate requirements as:

> Those cleanup action standards, standards of control, and other human health and environmental requirements, criteria or limitations established under state and federal law that, while not legally applicable to the hazardous substance, cleanup action, location, or other circumstances at a site, address problems or situations sufficiently similar to those encountered at the site that their use is well suited to the particular site.

WAC 173-340-710 through 173-340-760 identify several requirements the department considers relevant and appropriate. For other regulatory requirements, the criteria specified in WAC 173-340-710(4)(a)-(i) shall be used to determine if a requirement is relevant and appropriate.

Remedial actions conducted under MTCA must comply with the substantive requirements of the ARARs but are exempt from their procedural requirements (WAC 173-340-710[9]). Specifically, this exemption applies to state and local permitting requirements under the Washington State Water Pollution Control Act, Solid Waste Management Act, Hazardous Waste Management Act, Clean Air Act, State Fisheries Code, and Shoreline Management Act. ARARs were screened to assess their applicability to the Site. The following table summarizes the preliminary ARARs for the Site.

Preliminary ARARs for the Site

Preliminary ARAR	Citation or Source
MTCA	Chapter 70.105 of the Revised Code of Washington (RCW)
MTCA Cleanup Regulation	WAC 173-340
Ecology, Toxics Cleanup Program – Guidance To Be Considered	*Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action*, Review, Publication No. 09-09-047. October 2009; Review Draft Revised February 2016.
State Environmental Policy Act	RCW 43.21C
Washington State Shoreline Management Act	RCW 90.58; WAC 173-18, 173-22, and 173-27
The Clean Water Act	33 United States Code (USC) 1251 et seq.
Comprehensive Environmental Response,	42 USC 9601 et seq. and 40 CFR 300

Preliminary ARAR	Citation or Source
Compensation, and Liability Act of 1980	
The Fish and Wildlife Coordination Act	16 USC 661-667e; the Act of March 10, 1934; Ch. 55; 48 Stat. 401
Endangered Species Act	16 USC 1531 et seq.; 50 CFR 17, 225, and 402
Native American Graves Protection and Repatriation Act	25 USC 3001 through 3013; 43 CFR 10 and Washington's Indian Graves and Records Law (RCW 27.44)
Archaeological Resources Protection Act	16 USC 470aa et seq.; 43 CFR 7
Washington Dangerous Waste Regulations	WAC 173-303
Solid Waste Management Act	RCW 70.95; WAC 173-304 and 173-351
Occupational Safety and Health Administration Regulations	29 CFR Parts 1910, 1926
Washington Department of Labor and Industries Regulations	WAC 296
Water Quality Standards for Surface Waters of the State of Washington	RCW 90.48 and 90.54; WAC 173-201A
Water Quality Standards for Ground Water	WAC 173-200
Department of Transportation Hazardous Materials Regulations	40 CFR Parts 100 through 185
Washington State Water Well Construction Act	RCW 18.104; WAC 173-160
City of Seattle regulations, codes, and standards	All applicable or relevant and appropriate regulations, codes, and standards.
King County regulations, codes, and standards	All applicable or relevant and appropriate regulations, codes, and standards.
Puget Sound Clean Air Agency	Regulation I Article 6

6.3 CHEMICALS AND MEDIA OF CONCERN

The COCs for the Site are those compounds that were detected at concentrations exceeding their respective CULs. The COCs and the media where the COCs were detected are listed below:

- DRPH in soil
- ORPH in soil

6.4 CLEANUP STANDARDS

The selected cleanup alternative or Model Remedy must comply with the MTCA cleanup regulations specified in WAC 173-340 and with applicable state and federal laws. The CULs selected for the Site are consistent with Model Remedy Option 1. The associated media-specific CULs for the identified COCs are summarized in the following sections.

6.4.1 Cleanup Levels

The CULs for the media and COCs are tabulated below, including the source of the cleanup standard. The proposed CULs for soil at the Site are the MTCA Method A CULs for Unrestricted Land Use.

Proposed Cleanup Levels for Soil

COC	Cleanup Level (mg/kg)	Source
DRPH	2,000	MTCA Method A, Unrestricted; WAC 173-340-740(2)(b)(i)
ORPH	2,000	

NOTES:
COC = chemical of concern
DRPH = diesel-range petroleum hydrocarbons
mg/kg = milligrams per kilogram
MTCA = Washington State Model Toxics Control Act
ORPH = oil-range petroleum hydrocarbons
WAC = Washington Administrative Code

6.4.2 Points of Compliance

The point of compliance is the location where the enforcement limits that are set in accordance with WAC 173-200-050 will be measured and cannot be exceeded (WAC 173-200-060). Once the CULs have been attained at the defined points of compliance, the impacts present beneath the Property will no longer be considered a threat to human health or the environment.

6.4.2.1 Point of Compliance for Soil

In accordance with WAC 173-340-740(6)(b-d), the point of compliance for direct contact exposure is throughout the Site from the ground surface to 15 feet bgs, which is within the depth of soil to be excavated and lawfully disposed off-Site as a result of redevelopment activities.

7.0 MODEL REMEDY CLEANUP ACTION IMPLEMENTATION

This section provides a description of the components of the cleanup activities completed at the Site. The cleanup activities were designed to coincide with redevelopment activities at the Property. Construction activities were coordinated with Dickson Company (Dickson), the demolition and remedial excavation contractor, as well as with Elk Heights Excavation LLC (Elk Heights), the earthworks contractor, with SoundEarth providing supervision and guidance for the remedial activities. Photographs of the cleanup activities implementation process are included with this report and annotated for the field activity being performed. Dickson and Elk Heights performed the remedial excavation activities in accordance with the procedures detailed in SoundEarth's SMP (SoundEarth 2016d).

The cleanup action for the Site was a remedial excavation of known or suspected petroleum-impacted areas completed prior to and during a lot-line to lot-line redevelopment excavation. The Model Remedy was determined to be the most permanent and effective alternative available for the Site as it met the criteria set forth in Ecology's guidance (Ecology, 2017a), including a petroleum release to soil, Ecology notification, implementation of interim actions, adequate characterization of the Site to confirm that groundwater, surface water, and sediments were not impacted by petroleum hydrocarbons, absence of off-property impacts, and the Site met the criteria of WAC 173-340-7491 and is therefore excluded from a Terrestrial Ecological Evaluation.

The excavation was compatible with the Site redevelopment plan, which included an overall excavation of the Property, with a subgrade parking garage or base floor slab ranging from 10 feet bgs on the western quarter, to 12 to 22 feet bgs in the central portion, and to 22 feet bgs on the eastern quarter of the Property. The redevelopment has a subgrade elevation of approximately 242.4 feet NAVD88, with perimeter and elevator footings extending to a maximum depth of approximately 233 feet NAVD88. Excavation of the Property to this depth removed all soil exhibiting COCs above the applicable CULs. The excavation was completed between February and May 2017.

7.1 SITE SPECIFIC HEALTH AND SAFETY

Before the commencement of construction activities, SoundEarth prepared a Site-specific HASP in accordance with 29 CFR 1910.120. Dickson and Elk Heights were responsible for the health and safety of their workers while on the Property.

SoundEarth field-screened ambient air during the excavation activities to monitor petroleum hydrocarbon levels in the breathing zone of personnel and equipment operators, and at the Property boundaries. Ambient air field screening was conducted using a PID. Results of ambient air monitoring are discussed in Section 8.1.

An exclusion zone was set up around the Property to ensure that only HAZWOPER (Hazardous Waste Operations and Emergency Response)-certified workers entered the contaminated area.

7.2 BUILDING DEMOLITION

Demolition of all structures on the Property was completed prior to the Site excavation. Demolition activities were conducted by Dickson in January and February 2017.

7.3 MONITORING WELL DECOMMISSIONING

Monitoring well MW01, formerly located within the excavation area on the northern portion of Parcel E, was decommissioned on January 10, 2017. The monitoring well was decommissioned by Holocene Drilling, Inc. of Puyallup, Washington, in accordance with WAC 173-160-460. The monitoring well casing was filled with bentonite chips to grade and hydrated (Appendix D).

7.4 SOIL CLASSIFICATION

SoundEarth, MCRT Modera Jackson Construction, LLC, Dickson, and Elk Heights discussed the recommended soil disposal facilities prior to the excavation and ensured all parties were in agreement regarding the preferred disposal facilities for the soil classification system detailed in the SMP. The SMP identified the following soil classifications to efficiently direct the real-time segregation of excavated soil and loading of haul trucks:

- Category 1—Non-impacted fill or native soil (without debris or contaminants).
- Category 2—Impacted fill or native soil (containing less than 450 mg/kg DRPH and ORPH, as required by the Category 2 facility's permit).
- Category 3—Contaminated fill or native soil containing petroleum hydrocarbons at concentrations above 450 mg/kg, as required by the Category 3 disposal facility and in accordance with Ecology's Guidelines for Reuse of Petroleum-Contaminated Soil (Ecology 2011).

More detailed information on soil classification designations and disposal acceptance criteria for permitted landfill facilities is provided in the SMP (SoundEarth 2016d).

7.5 REMEDIAL EXCAVATION

Based on the soil boring observations, analytical data, and predevelopment remedial excavations conducted at the Property between 2012 and 2016, the following three areas of known or suspected petroleum contamination were identified, as depicted on Figure 2:

- **Area 1**. GeoTech advanced geotechnical boring B-5 on Parcel B near the former 300-gallon heating oil tank location at Building 1. During the drilling of geotechnical boring B-5, GeoTech noted the presence of soil exhibiting petroleum odors at depths of 6 to 8 feet bgs. A soil sample was not collected for chemical analysis. Four other borings in this immediate area did not encounter indications of petroleum impacts.
- **Area 2**. A soil sample collected from Slotta boring SB-5 at a depth of 4 feet bgs in the Building 1 hydraulic press room contained 110 mg/kg of DRPH and 260 mg/kg of ORPH. Both concentrations are below the MTCA Method A CUL of 2,000 mg/kg but are considered by Ecology as “Category 2” soil for disposal purposes. Two other soil borings advanced in the hydraulic press area did not encounter indications of petroleum impacts.
- **Area 3**. During a Phase I Environmental Audit conducted in 2000 by EAI, oil-staining was observed on the wall and ground surface on the southwestern portion of Building 2. The staining was due to a leaking press machine. A remedial excavation of impacted soil was conducted by EAI outside the building, adjacent to the leak. However, approximately 0.2 cubic yards of PCS were estimated by EAI to remain beneath Building 2. This material was not removed due to concerns regarding the structural stability of the building foundation.

SoundEarth, in conjunction with Dickson, completed remedial excavation of the three areas described above and depicted on Figure 2 between February 8 and 10, 2017. Remedial activities for these three areas are summarized in sections 7.5.1 through 7.5.3 below (Table 3; Figure 8).

Additionally, as concrete slabs and asphalt paving were removed from each parcel in preparation for mass excavation of the Property, SoundEarth performed visual, olfactory, and PID screening of surficial soil beneath the former concrete and asphalt areas to identify any additional areas where PCS may be present. Impacted surficial soil was not observed in any portion of the Property during this screening process.

On May 5, 2017, following mass excavation of the Property for redevelopment, an area of odorous, gray-stained soil was discovered in the northwestern portion of the Property. The stained soil was encountered in the vicinity of Area 1 during the excavation of an elevator footing for the new construction. Remedial activities for this area are summarized in section 7.5.4 below (Table 3; Figure 9).

7.5.1 Excavation Area 1 (EX01)

Remedial excavation area EX01 was located in the vicinity of a former heating oil UST, where PCS had reportedly been observed at a depth of approximately 6 to 8 feet bgs in boring B-5 on the northern portion of Parcel B. The final dimensions of excavation area EX01 were 13 feet (north to south) by 13 feet (east to west) by 8 feet deep. No hydrocarbon odors, staining, or elevated PID readings were observed during the excavation. Confirmation soil samples were collected from the bottom and sidewalls of the excavation area. All confirmation samples from EX01 had no detectable DRPH or ORPH. Excavated soil was stockpiled on plastic sheeting and sampled, pending completion of the remedial excavation and receipt of the analytical results.

7.5.2 Excavation Area 2 (EX02)

Remedial excavation area EX02 was located in the vicinity of a former hydraulic press in the northern portion of Building 1 on Parcel C, where DRPH and ORPH were previously detected in soil at a depth of 4 feet bgs in boring SB-5. Excavation area EX02 was completed in an L-shape based on the locations of the detections in boring SB-5 and the hydraulic press; final excavation dimensions were approximately 15 feet (north to south) by 16 feet (east to west) by 5 feet deep. No hydrocarbon odors, staining, or elevated PID readings were observed during the excavation. Confirmation soil samples were collected from the bottom and sidewalls of the excavation area. All confirmation samples from EX02 had no detectable DRPH or ORPH. Excavated soil was stockpiled on plastic sheeting and sampled, pending completion of the remedial excavation and receipt of the analytical results.

7.5.3 Excavation Area 3 (EX03)

Excavation area EX03 was located on the southern portion of Parcels C and D, directly adjacent to a historical remedial excavation of PCS associated with a former leaking press machine in Building 2. This excavation was conducted to remove the PCS beneath Building 2 that could not be removed during the previous excavation while the building was still in place. The proposed excavation dimensions were approximately 15 feet (north to south) by 8 feet (east to west) by 5 feet deep.

During the excavation, PCS was observed at a depth of approximately 2 to 3 feet bgs along the northern portion of the west sidewall, adjacent to the previously excavated area. This material was observed to be very dense silt and sand with gray staining and a faint to moderate hydrocarbon odor. The excavation area was extended approximately 1 to 2 feet to the northwest based on field observations and screening, and confirmation soil samples were collected from the bottom and sidewalls of the excavation area.

Following the initial excavation and soil sampling, analytical results indicated that PCS was still in place on the bottom at 4.0 feet below grade (ORPH at 3,300 mg/kg) and on the west sidewall at 2.0 feet below grade (ORPH at 720 mg/kg). Based on these results, an additional 2 feet of soil was excavated from the bottom of the excavation and the north end of the west sidewall until field screening indicated that all PCS was removed. New confirmation soil samples were collected from the bottom and west sidewall of the excavation area. All final confirmation samples from EX03 had no detectable DRPH or ORPH. The final excavation dimensions were approximately 15 feet (north to south) by 9 to 13 feet (east to west) by 6 feet deep. Excavated soil was stockpiled on plastic sheeting and sampled, pending completion of the remedial excavation and receipt of the analytical results.

Prior to the over-excavation of the west sidewall and bottom of EX03 on February 10, 2017, approximately 3 feet of stormwater had accumulated within the excavation. Pro-Vac was called to the site with a vacuum truck to pump the water out of the excavation. Approximately 2,500 gallons of water were removed from the excavation.

7.5.4 Elevator Pit Excavation Area (EX04)

On May 5, 2017, PCS was discovered during the excavation of an elevator footing in the northwestern portion of the Property. The PCS was encountered along the bottom and west sidewall of the excavated area at a depth of approximately 14 feet below original grade. The observed PCS was located in the vicinity of the former heating oil tank, adjacent to and vertically below remedial excavation EX01. Pursuant to the SMP prepared for the Property (SoundEarth 2016d), Elk Heights discontinued excavation activities when the impacted soil was observed. SoundEarth was called to the Property to collect performance soil samples and characterize the extent of the impacts, again in conformance with the SMP. The results of performance soil sampling indicated that DRPH was present at concentrations exceeding the MTCA Method A CUL in samples collected from the bottom (2,700 mg/kg at 17 feet below grade) and the west sidewall of the excavation (11,000 mg/kg at 14 feet below grade) (Table 3). The laboratory identified the petroleum product as heating oil.

On May 8, 2017, SoundEarth, in conjunction with Elk Heights, began the remedial excavation of the impacted areas of EX04. Approximately 1 to 2 feet of soil was removed from the bottom and south sidewall of the excavation to a depth of approximately 19 feet below original grade, until field screening indicated that all PCS had been removed from these areas. Approximately 2 to 3 feet of soil was excavated from the west sidewall, until Elk Heights indicated that the excavation had reached the planned limits of the elevator footing. It was determined that Elk Heights would discontinue remedial excavation activities on the west sidewall until after the footing was poured. Confirmation soil samples were collected from the north, south, and east sidewalls and the bottom of the excavation area. A performance soil sample was collected from the remaining PCS in the west sidewall (5,200 mg/kg at 15 feet below grade). Excavated soil was stockpiled on plastic sheeting, pending the completion of the remedial excavation and removal of the PCS from the Property.

On May 22, 2017, SoundEarth and Elk Heights resumed the remedial excavation of the west sidewall of EX04 with the new footing in place. Clean soil overlying the remaining PCS on the west sidewall was removed and stockpiled for reuse. Approximately 2 to 3 feet of additional PCS were removed from the west sidewall, and 1 to 2 additional feet of soil were removed from the bottom of the excavation where small pockets of PCS were observed. Excavation activities were completed when field screening indicated that all PCS had been removed.

The final dimensions of EX04 were approximately 34 feet (north to south) by 20 feet (east to west) by 9 feet deep (approximately 21 feet below original grade). PCS was only observed in the western portion of the elevator pit excavation area. Confirmation soil samples were collected from the bottom and west sidewall of the final limits of the excavation area, and excavated soil was stockpiled on plastic sheeting, pending removal from the Property. All final confirmation samples from EX04 had no detectable DRPH or ORPH.

Groundwater was not encountered in any of the excavation areas during the course of the remedial excavation.

7.6 SOIL DISPOSAL

PCS encountered during excavation activities was sampled and stockpiled on plastic sheeting, pending laboratory analytical results to determine the appropriate disposal facilities for each stockpile. Soil samples collected from the excavation area EX02 stockpile did not contain concentrations of DRPH or

ORPH exceeding 500 mg/kg; therefore, this soil was transported as Category 2 material to the CEMEX facility in Everett, Washington, on February 10, 2017. Soil samples collected from the EX01 and EX03 stockpiles contained DRPH and/or ORPH concentrations exceeding or equaling 500 mg/kg; therefore, this soil was transported as Category 3 material to the Republic Services' Regional Disposal Intermodal facility located at 3rd and Lander in Seattle, Washington, on February 9, 2017, or to the CEMEX Category 3 facility in Everett, Washington, on February 10, 2017.

Based on performance soil sample results from the elevator pit excavation area EX04, soil removed from this excavation contained concentrations of DRPH exceeding 500 mg/kg and was, therefore, transported as Category 3 material to the Regional Disposal Intermodal Facility at 3rd and Lander in Seattle, Washington, on May 22, 2017.

Approximately 27.77 tons of Category 2 and 222.72 tons of Category 3 soil were removed from the Property and transported to CEMEX and Republic. Soil disposal documentation is provided in Appendix E.

7.7 WATER DISPOSAL

Approximately 2,500 gallons of stormwater were pumped from excavation area EX03 and removed from the Property by Pro-Vac on February 10, 2017 (certificate provided in Appendix E). Since the stormwater accumulated in a petroleum impacted area, no profiling of this water was required for disposal by Pro-Vac. Groundwater was not encountered or disposed of during excavation activities.

8.0 COMPLIANCE MONITORING

There are three types of compliance monitoring identified for the cleanup action (WAC 173-340-410): protection, performance, and confirmational monitoring. A paraphrased definition for each is presented below (WAC 173-340-410[1]):

- **Protection Monitoring**. To evaluate whether human health and the environment are adequately protected during the cleanup activities.
- **Performance Monitoring**. To document that the cleanup activities have attained cleanup standards.
- **Confirmational Monitoring**. To evaluate the long-term effectiveness of the cleanup activities, or once cleanup standards or other performance standards have been attained.

8.1 PROTECTION MONITORING

In accordance with the Site-specific HASP, SoundEarth monitored ambient air during excavation activities for petroleum hydrocarbons in the breathing zone of personnel and equipment operators and at the boundaries of the Property. Air monitoring was conducted using a PID. Results of air monitoring did not indicate elevated PID readings exceeding 1.0 parts per million by volume (ppmv) in the breathing zone or at the Property boundaries.

8.2 PERFORMANCE MONITORING

Performance monitoring included the collection of soil samples from the sidewalls and floors of each of the four remedial excavation areas. Soil samples were collected by a SoundEarth geologist and transferred directly to laboratory-prepared sample containers labeled with unique laboratory identification numbers. The containers were placed in an iced cooler and transported for laboratory analysis to F&BI under standard chain-of-custody protocols. Samples were analyzed for DRPH and ORPH by Method NWTPH-Dx. Performance soil sampling locations and results are presented on Figures 8 and 9 and in Table 3. Laboratory analytical reports are provided in Appendix B.

Performance monitoring and field screening of soil was conducted during the remedial excavation activities to direct advancement of the excavation and demonstrate that MTCA Method A CULs had been met. A SoundEarth geologist observed the excavation of identified impacted soil during the excavation activities and performed field screening of the non-impacted soil areas to confirm the lack of notable impacts. Field screening included observation of the soil for discoloration, sheen, and odors. In addition to physical observations, a PID was used to qualitatively measure volatile organic vapors in the soil.

Contaminated soil was excavated from each of the remedial excavation areas until visual observations, field screening, and performance sample laboratory data indicated that the extent of contamination had been determined and all impacted soil removed. A performance soil sample collected from the bottom of excavation area EX03 at a depth of 4 feet bgs (EX03-B02-4) contained a concentration of ORPH above the applicable MTCA Method A CUL and a concentration of DRPH below the applicable CUL. A performance soil sample collected from the west sidewall of this excavation area at a depth of 2 feet bgs (EX03-WSW01-2) contained concentrations of DRPH and ORPH below the applicable CULs. The west sidewall and bottom of the excavation area were then overexcavated by approximately 2 feet and resampled until compliance with CULs was achieved.

Performance soil samples collected from the bottom and west sidewall of excavation area EX04 at depths of 14, 15, and 17 feet below original grade contained concentrations of DRPH exceeding the applicable CUL. The bottom and west sidewall of the excavation area were subsequently overexcavated by approximately 3 to 4 feet and resampled until compliance with CULs was achieved.

8.3 CONFIRMATIONAL MONITORING

Confirmation soil samples were collected from the final extents (sidewalls and bottom) of each of the four remedial excavation areas. Soil samples were submitted to F&BI for laboratory analysis of DRPH and ORPH by NWTPH Method NWTPH-Dx. None of the confirmation soil samples collected from the final limits of the four excavation areas contained detectable concentrations of DRPH or ORPH.

Confirmation soil sampling locations and results are presented on Figures 8 and 9 and in Table 3. Copies of the laboratory analytical reports are included in Appendix B.

9.0 CONCLUSIONS

The results of the RI activities and previous subsurface investigations conducted by SoundEarth and others at the Site between 2012 and 2016 support the conclusion that the COCs for the Site are DRPH and ORPH in soil. Impacts to groundwater above background concentrations were not observed during any previous subsurface investigations conducted on the Property.

Soil impacts were initially thought to be limited to three source areas identified on the Property, including the vicinity of the former heating oil UST on Parcel B (EX01), at Slotta boring SB05 on Parcel C

(EX02), and the former hydraulic press area near the southern common boundary of Parcels C and D (EX03).A fourth area of limited impacted soil was identified during the excavation of an elevator footing pit (EX04) associated with the Property redevelopment. This impacted area was located directly adjacent to and vertically beneath area EX01 and was likely associated with the former heating oil UST. All contaminated soil was disposed off-Site at a licensed disposal facility.

Confirmation soil samples collected from the final extent of remedial excavation areas EX01, EX02, EX03, and EX04 demonstrate that all soil containing detected concentrations of DRPH and ORPH has been removed from the Property. None of the final confirmation soil samples from any of the four excavation areas contained detectable concentrations of DRPH or ORPH, indicating that all remedial action objectives have been achieved.

Neither PCS nor other impacted soil was observed in any other areas of the Property during initial surficial soil screening, mass excavation of the Property, or excavation of footings and utility trenches. Based on the results of the confirmation soil samples collected from excavation areas EX01, EX02, EX03, and EX04, and the absence of any groundwater impacts based upon previous investigations, no additional remedial actions at the Property are warranted.

10.0 LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party’s sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are not responsible for the accuracy or validity of work performed by others, nor from the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

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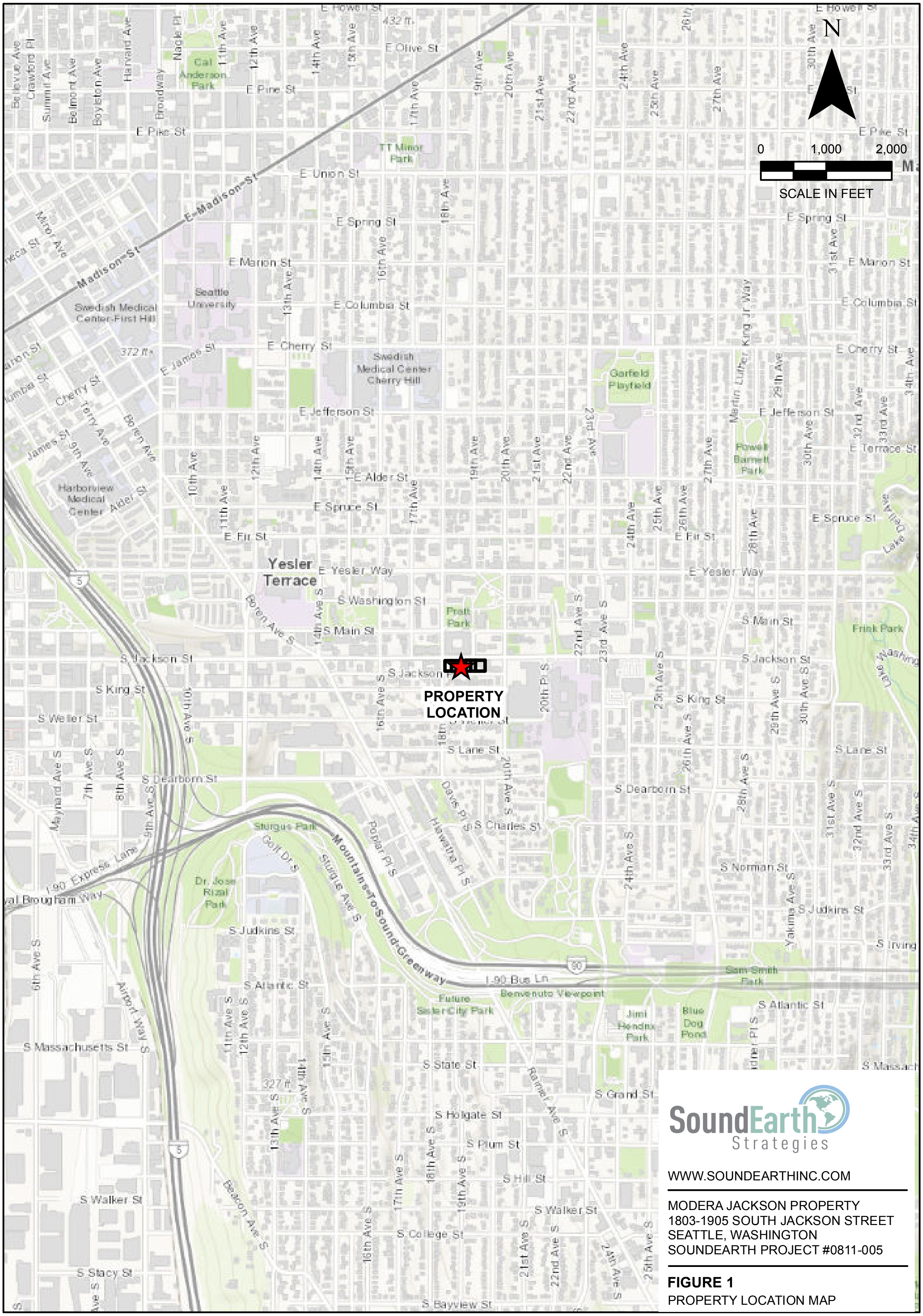
FIGURES



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SOUNDEARTH PROJECT #0811-005

FIGURE 1
PROPERTY LOCATION MAP

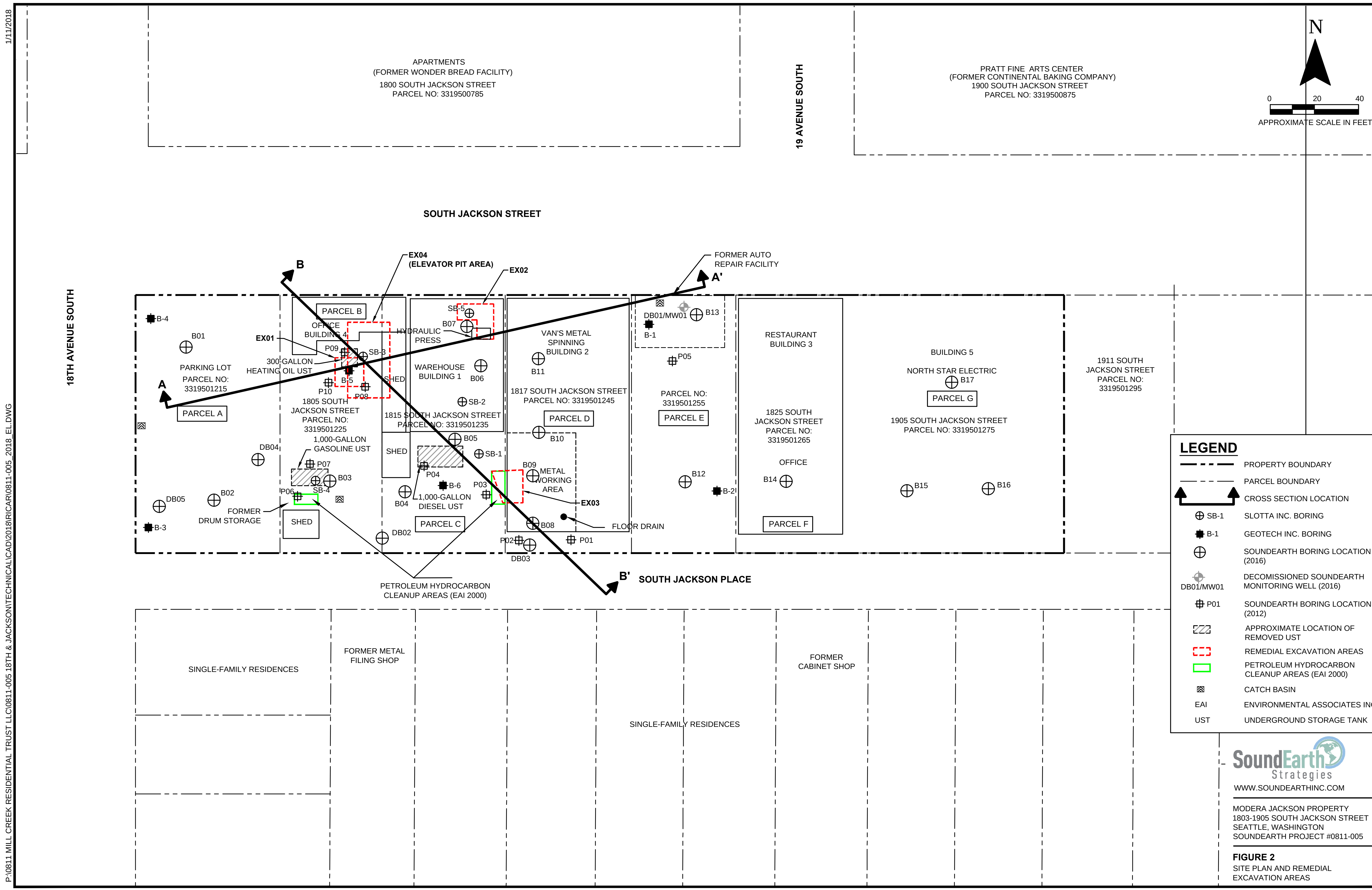
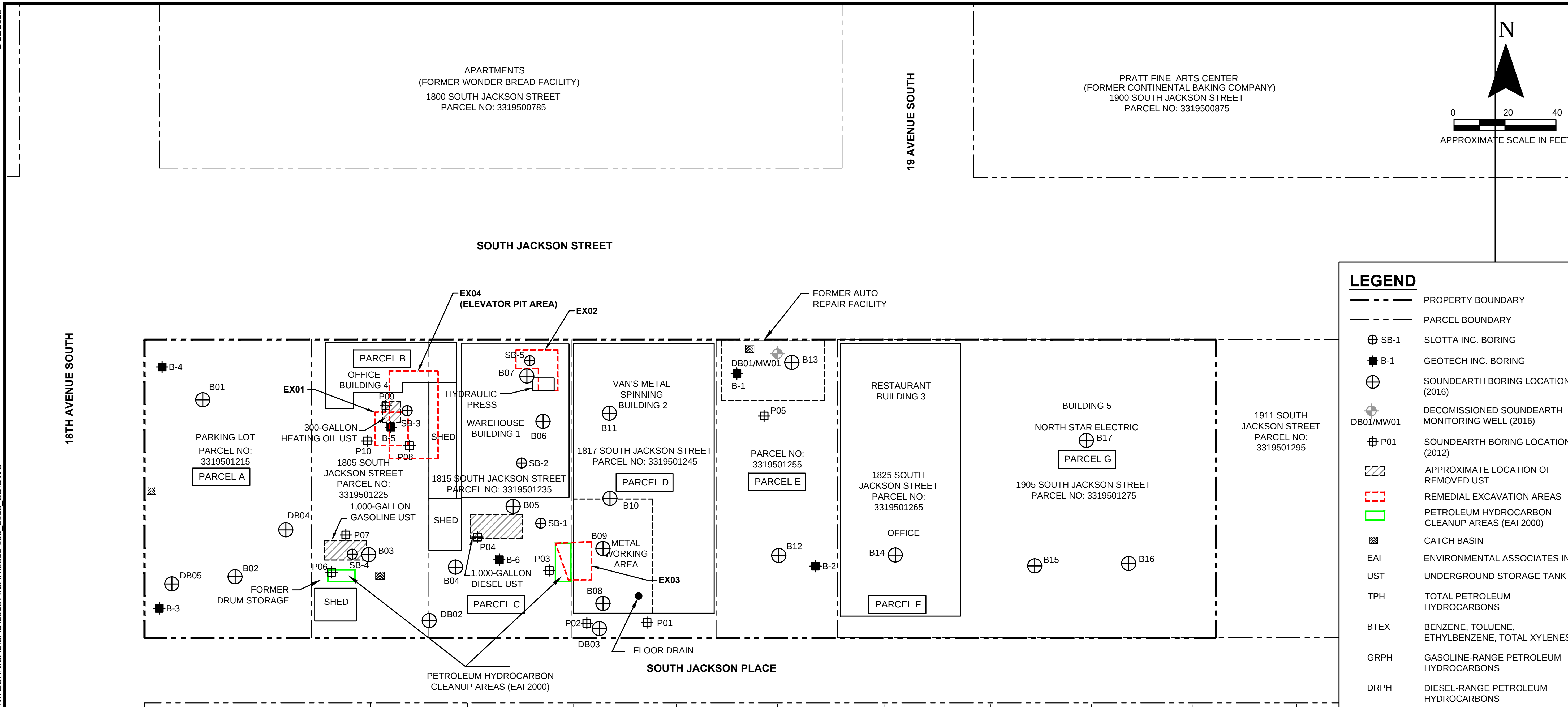


FIGURE 2
SITE PLAN AND REMEDIAL EXCAVATION AREAS



Sample Location	Sample Date	Sample Depth (feet bgs)	Analytical Results (milligrams per kilogram) GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
SB-1	09/28/12	9.0	--	<25	<50	--	--	--	--
SB-2	09/28/12	8.0	--	<25	<50	--	--	--	--
SB-3	09/28/12	7.5	--	<25	<50	--	--	--	--
SB-4	09/28/12	9.0	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20
SB-5	09/28/12	4.0	--	110	260	--	--	--	--
P01	12/13/12	4	--	<50	<250	--	--	--	--
	12/13/12	15.5	--	--	--	--	--	--	--
P02	12/13/12	7	--	<50	<250	--	--	--	--
	12/13/12	15.5	--	--	--	--	--	--	--
P03	12/13/12	4	--	<50	<250	--	--	--	--
	12/13/12	7	--	<50	<250	--	--	--	--
P04	12/13/12	8	--	<50	<250	--	--	--	--
P05	12/13/12	4	--	<50	<250	--	--	--	--
	12/13/12	7	--	<50	<250	--	--	--	--
P06	12/14/12	10	<2	--	--	<0.02	<0.02	<0.02	<0.06
P07	12/14/12	10	<2	--	--	<0.02	<0.02	<0.02	<0.06
P08	12/14/12	5	--	<50	<250	--	--	--	--
	12/14/12	10	--	--	--	--	--	--	--
P09	12/14/12	7	--	<50	<250	--	--	--	--
P10	12/14/12	8	--	<50	<250	--	--	--	--
MTCA Method A Cleanup Level			100	2,000	2,000	0.03	7	6	9

Sample Location	Sample Date	Sample Depth (feet bgs)	Analytical Results (milligrams per kilogram) GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
B01	06/02/16	4.0	--	<50	<250	--	--	--	--
B02	06/02/16	4.0	--	<50	<250	--	--	--	--
B03	06/02/16	4.0	<2	<50	<250	<0.02	<0.02	<0.02	<0.06
		8.0	<2	--	--	<0.02	<0.02	<0.02	<0.06
B04	06/02/16	4.0	--	<50	<250	--	--	--	--
		8.0	--	<50	<250	--	--	--	--
		12.0	--	--	--	<0.03	<0.05	<0.05	<0.2
B05	06/02/16	4.0	--	<50	<250	--	--	--	--
		10.5	--	<50	<250	--	--	--	--
B06	06/01/16	4.0	--	<50	<250	--	--	--	--
B07	06/01/16	3.0	--	<50	<250	--	--	--	--
B08	06/01/16	4.0	--	<50	<250	--	--	--	--
		6.0	--	<50	<250	<0.03	<0.05	<0.05	<0.2
B09	06/01/16	6.0	--	--	--	<0.03	<0.05	<0.05	<0.2
B10	06/01/16	6.0	--	--	--	<0.03	<0.05	<0.05	<0.2
B13	06/02/16	4.0	--	<50	<250	--	--	--	--
B16	06/02/16	4.0	--	<50	<250	--	--	--	--
B17	06/01/16	4.0	--	--	--	<0.03	<0.05	<0.05	<0.2
DB01	06/21/16	3.5	--	<50	<250	--	--	--	--
DB02	06/21/16	3.5	--	<50	<250	--	--	--	--
MTCA Method A Cleanup Level			100	2,000	2,000	0.03	7	6	9

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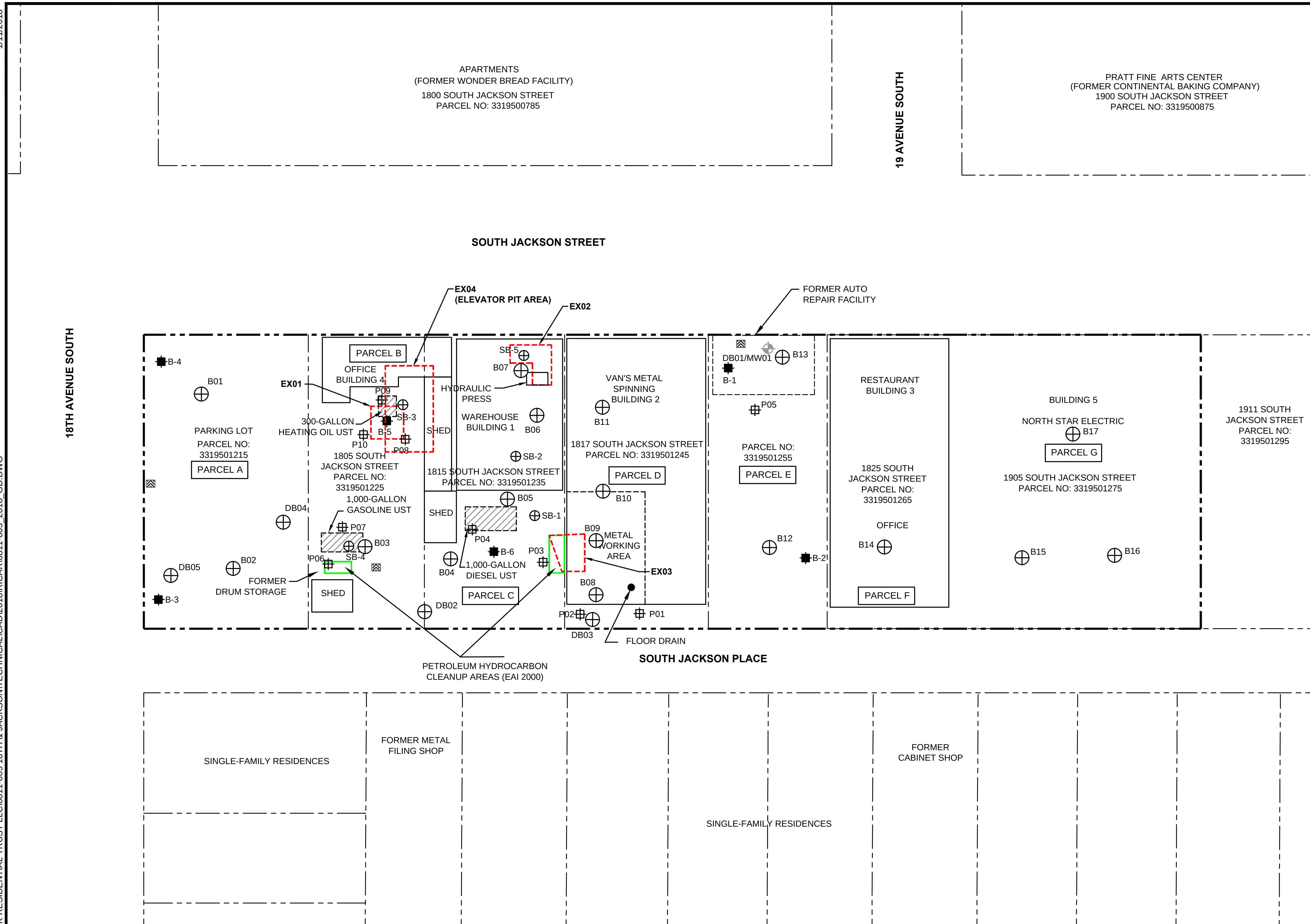
FIGURE 3
SOIL ANALYTICAL RESULTS FOR TPH AND BTEX



1/11/2018

P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005 2018 GD.DWG

LEGEND

	PROPERTY BOUNDARY
	PARCEL BOUNDARY
SB-1	SLOTTA INC. BORING
B-1	GEOTECH INC. BORING
	SOUNDEARTH BORING LOCATION (2016)
DB01/MW01	DECOMISSIONED SOUNDEARTH MONITORING WELL (2016)
P01	SOUNDEARTH BORING LOCATION (2012)
	APPROXIMATE LOCATION OF REMOVED UST
	REMEDIAL EXCAVATION AREAS
	PETROLEUM HYDROCARBON CLEANUP AREAS (EAI 2000)
	CATCH BASIN
EAI	ENVIRONMENTAL ASSOCIATES INC.
UST	UNDERGROUND STORAGE TANK
TPH	TOTAL PETROLEUM HYDROCARBONS
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS
MTCA	WASHINGTON STATE MODEL TOXICS CONTROL ACT
<	RESULT BELOW LABORATORY REPORTING LIMITS

Sample Location	Sample Date	Analytical Results (micrograms per liter)						
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
DB01/MW01	06/23/16	<100	<50	<250	<1	<1	<1	<3
DB02	06/21/16	<100	<80	<400	<1	<1	<1	<3
MTCA Cleanup Level		**1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**

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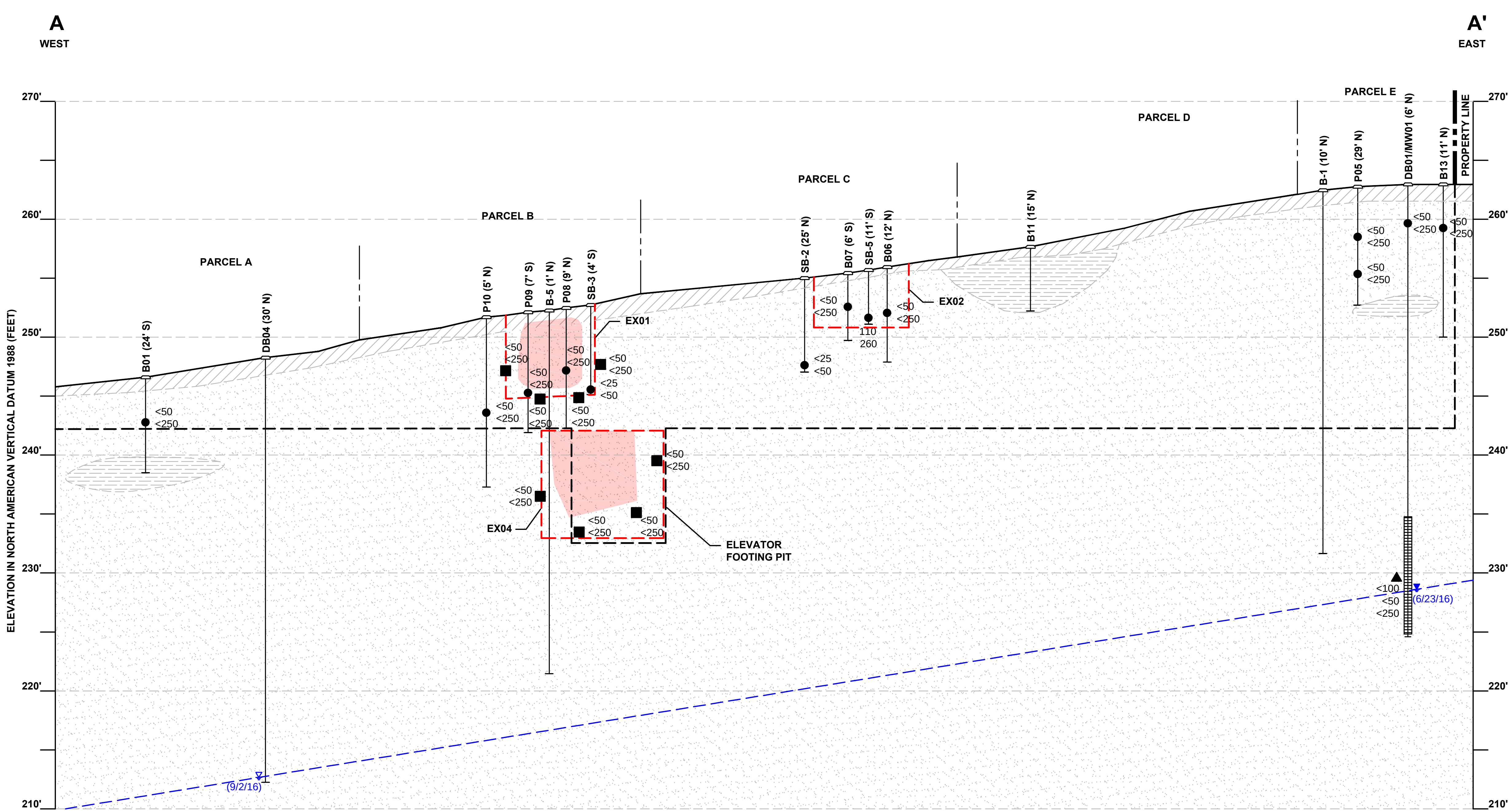
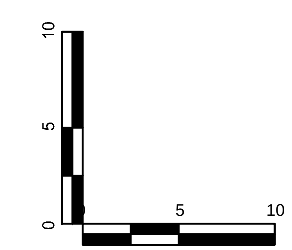
FIGURE 4
GROUNDWATER ANALYTICAL RESULTS FOR TPH AND BTEX

1/18/2018





APPROXIMATE SCALE IN FEET

LEGEND

(5' N)	OFFSET 5' NORTH
	MONITORING WELL
	SCREEN INTERVAL
	GROUNDWATER LEVEL AT TIME OF SAMPLING
	GROUNDWATER LEVEL AT TIME OF DRILLING

- **FILL**
- **SP/SM:** SAND TO SILTY SAND WITH VARYING AMOUNTS OF GRAVEL
- **ML/SM:** SILT TO SANDY SILT
- **SP/GP:** SILTY SAND & GRAVEL

- CONFIRMATION SOIL SAMPLE
- SOIL BORING SAMPLE
- GROUNDWATER SAMPLE
- APPROXIMATE EXTENT OF PETROLEUM-IMPACTED SOIL
- EXTENT OF MASS EXCAVATION
- EXTENT OF REMEDIAL EXCAVATION AREAS
- APPROXIMATE GROUNDWATER ELEVATION

SOIL RESULTS (mg/kg):

<50	DRPH
<250	ORPH

GROUNDWATER RESULTS (µg/L):

<100	GRPH
<50	DRPH
<250	ORPH

mg/kg	MILLIGRAMS PER KILOGRAM
µg/L	MICROGRAMS PER LITER
GRPH	GASOLINE-RANGE PETROLEUM HYDROCARBONS
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS

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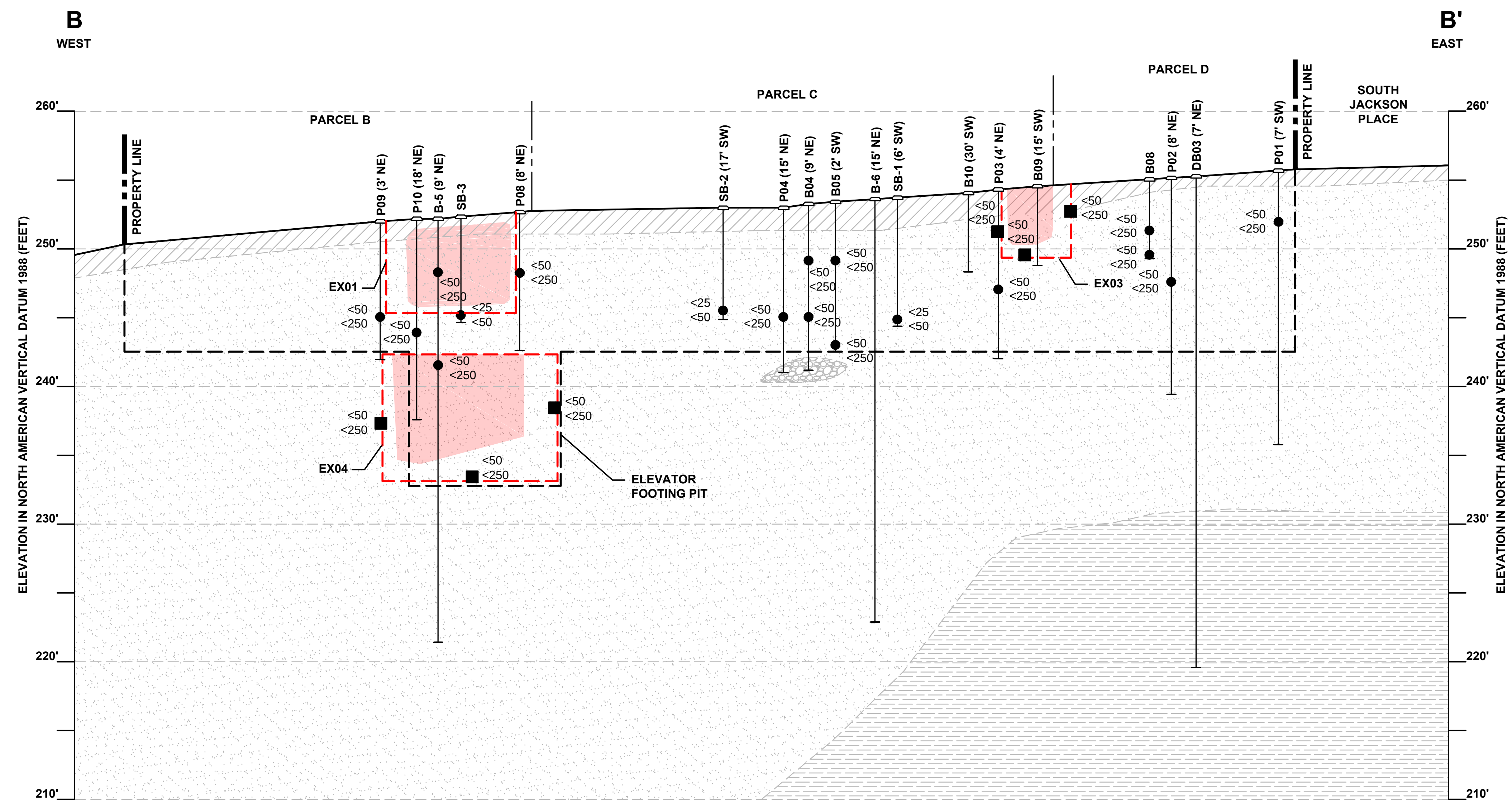
FIGURE 5
GEOLOGIC CROSS SECTION A-A'

P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005_2018_XAA.DWG

1/18/2018



LEGEND

(5' N) OFFSET 5' NORTH

MONITORING WELL

SCREEN INTERVAL

FILL

SP/SM: SAND TO SILTY SAND WITH VARYING AMOUNTS OF GRAVEL

ML/SM: SILT TO SANDY SILT

SP/GP: SILTY SAND & GRAVEL

CONFIRMATION SOIL SAMPLE

SOIL BORING SAMPLE

APPROXIMATE EXTENT OF PETROLEUM-IMPACTED SOIL

EXTENT OF MASS EXCAVATION

EXTENT OF REMEDIAL EXCAVATION AREAS

SOIL RESULTS (mg/kg):

<50	DRPH
<250	ORPH

mg/kg	MILLIGRAMS PER KILOGRAM
DRPH	DIESEL-RANGE PETROLEUM HYDROCARBONS
ORPH	OIL-RANGE PETROLEUM HYDROCARBONS

0 5 10

APPROXIMATE SCALE IN FEET

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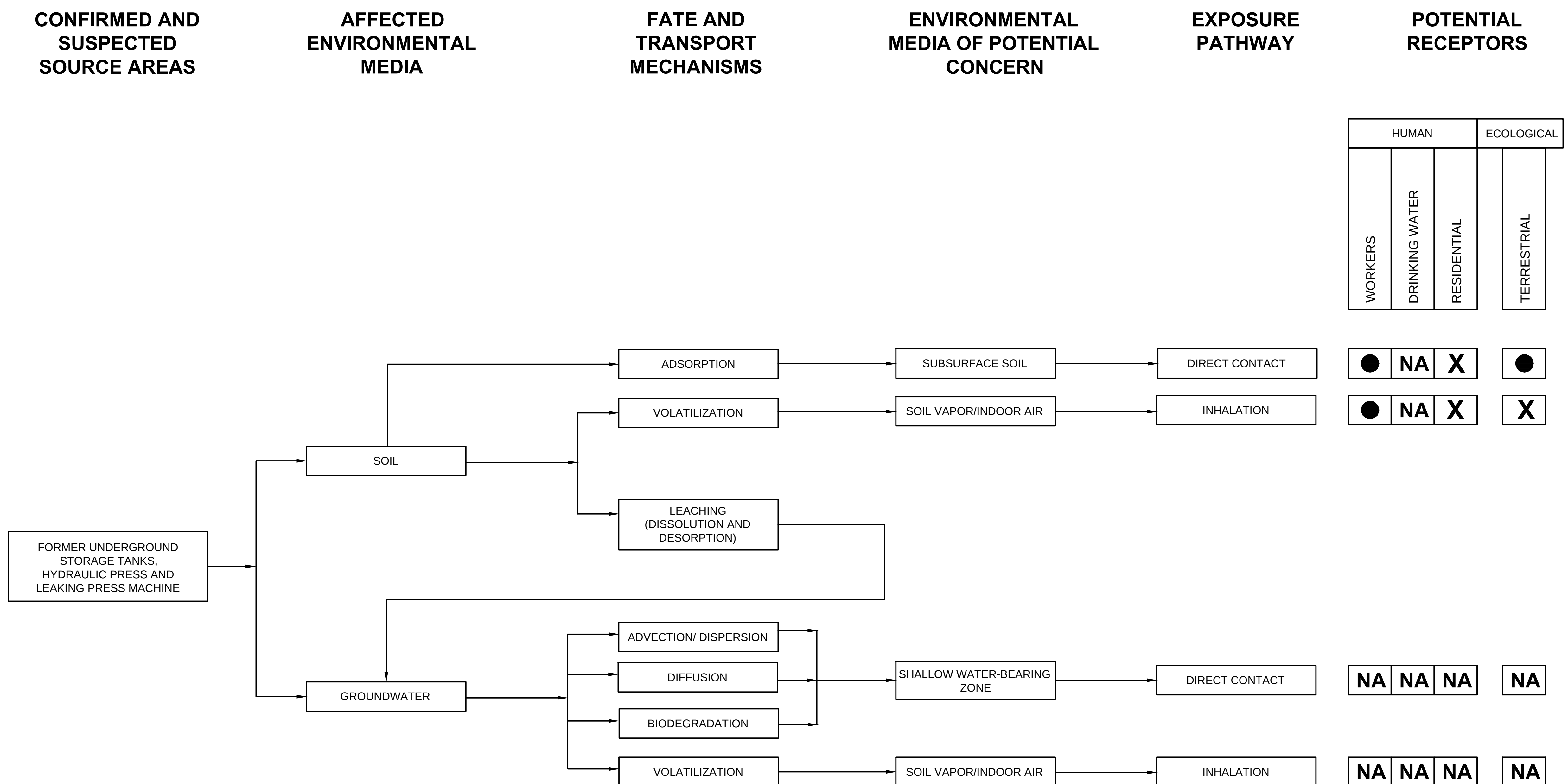
FIGURE 6

GEOLOGIC CROSS SECTION B-B'

P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005_2018_XBB.DWG



LEGEND

- ● EXPOSURE PATHWAY COMPLETE FOR POTENTIAL RECEPTOR
- ☐ EXPOSURE PATHWAY COULD BE COMPLETE, BUT THE POTENTIAL RECEPTOR IS UNLIKELY
- X EXPOSURE PATHWAY INCOMPLETE
- NA NOT APPLICABLE
- UST UNDERGROUND STORAGE TANK

NOTE: DIRECT CONTACT INCLUDES DERMAL AND INGESTION

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FIGURE 7
CONCEPTUAL SITE MODEL EXPOSURE ASSESSMENT

P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005_2018_CSM.DWG

1/11/2018

Remedial Excavation Area	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram)	
				DRPH	ORPH
Excavation Confirmation Samples					
EX01	EX01-NSW01-6	02/08/17	6.0	<50	<250
	EX01-SSW01-6	02/08/17	6.0	<50	<250
	EX01-ESW01-6	02/08/17	6.0	<50	<250
	EX01-WSW01-6	02/08/17	6.0	<50	<250
	EX01-B01-8	02/08/17	8.0	<50	<250
	EX01-B02-8	02/08/17	8.0	<50	<250
EX02	EX02-NSW01-4	02/08/17	4.0	<50	<250
	EX02-SSW01-4	02/08/17	4.0	<50	<250
	EX02-ESW01-4	02/08/17	4.0	<50	<250
	EX02-WSW01-4	02/08/17	4.0	<50	<250
	EX02-B02-5	02/08/17	5.0	<50	<250
	EX02-B01-5	02/08/17	5.0	<50	<250
EX03	EX03-B01-4	02/08/17	4.0	<50	<250
	EX03-B02-4	02/08/17	4.0	500	3,300
	EX03-B03-6	02/10/17	6.0	<50	<250
	EX03-NSW01-2	02/08/17	2.0	<50	<250
	EX03-WSW01-2	02/08/17	2.0	59	720
	EX03-WSW02-3	02/10/17	3.0	<50	<250
	EX03-ESW01-2	02/08/17	2.0	<50	<250
	EX03-SSW01-2	02/08/17	2.0	<50	<250
Stockpile Samples					
EX01	SP01-01	02/08/17	--	<50	<250
	SP01-02	02/08/17	--	<50	<250
	SP01-03	02/08/17	--	<50	500
EX02	SP02-01	02/08/17	--	<50	<250
	SP02-02	02/08/17	--	<50	<250
	SP02-03	02/08/17	--	<50	<250
EX03	SP03-01	02/08/17	--	1,900	16,000
	SP03-02	02/08/17	--	83	580
	SP03-03	02/08/17	--	3,300	12,000
MTCA Cleanup Level for Soil				2,000	2,000

NOTE: GRAY SHADING INDICATES SOIL WAS OVEREXCAVATED AND RESAMPLED

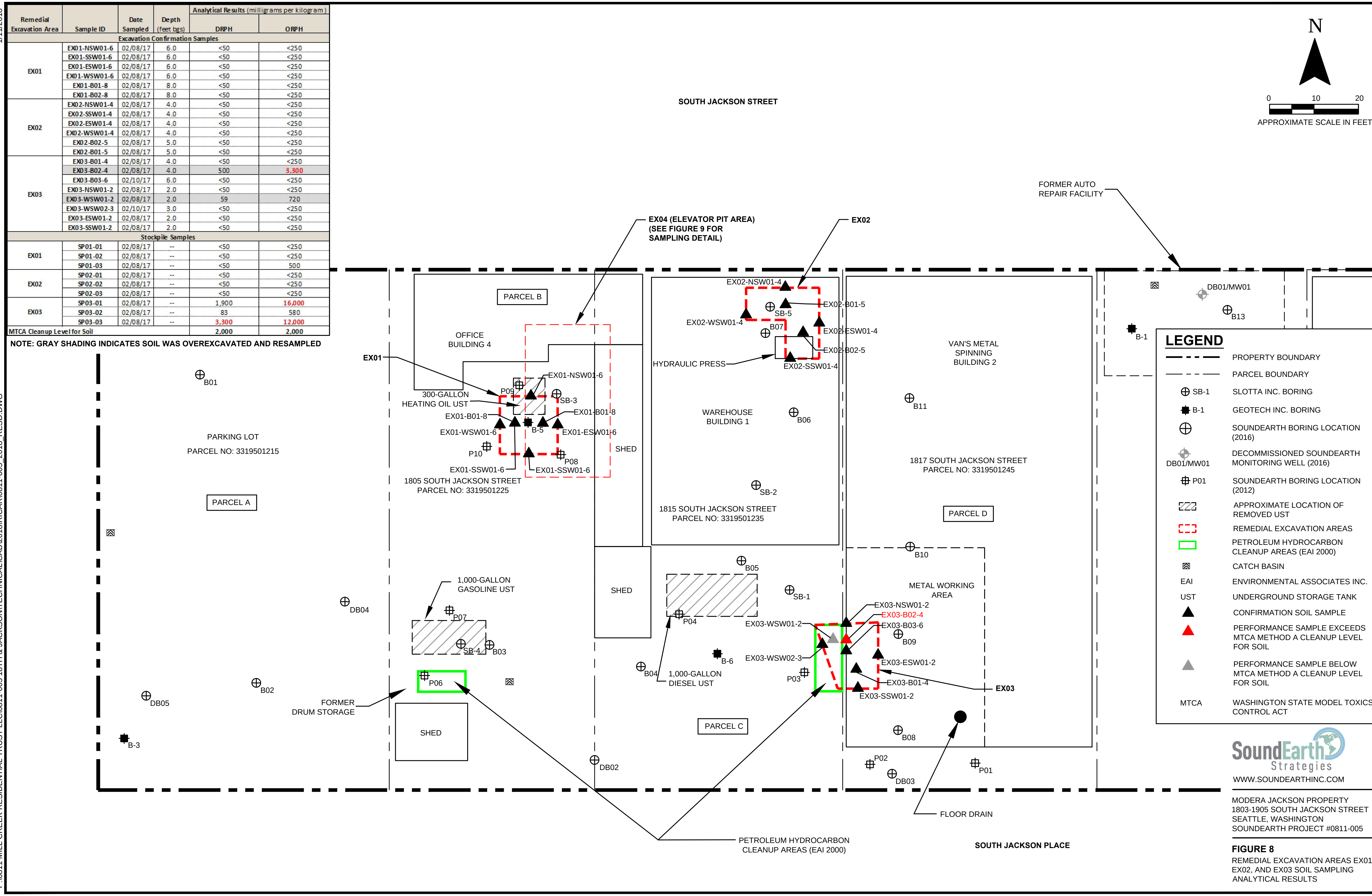

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FIGURE 8
REMEDIAL EXCAVATION AREAS EX01, EX02, AND EX03 SOIL SAMPLING ANALYTICAL RESULTS

1/11/2018
P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005_2018_RESD.DWG

1/11/2018

Remedial Excavation Area	Sample ID	Date Sampled	Depth (feet bgs)	Analytical Results (milligrams per kilogram)	
				DRPH	ORPH
Excavation Confirmation Samples					
EX04 (Elevator Pit)	EP-B-05	05/05/17	17.0	2,700	<250
	EP-B02-07.5	05/08/17	19.5	<50	<250
	EP-B03-07	05/08/17	19.0	<50	<250
	EP-B04-09	05/22/17	21.0	<50	<250
	EP-NSW01-02	05/08/17	14.0	<50	<250
	EP-SSW01-03	05/08/17	15.0	<50	<250
	EP-ESW01-02	05/08/17	14.0	<50	<250
	EP-WSW-02	05/05/17	14.0	11,000	<250
	EP-WSW02-03	05/08/17	15.0	5,200	<250
	EP-WSW03-03	05/08/17	15.0	<50	<250
	EP-WSW04-04	05/22/17	16.0	<50	<250
	EP-WSW05-04	05/22/17	16.0	<50	<250
MTCA Cleanup Level for Soil				2,000	2,000

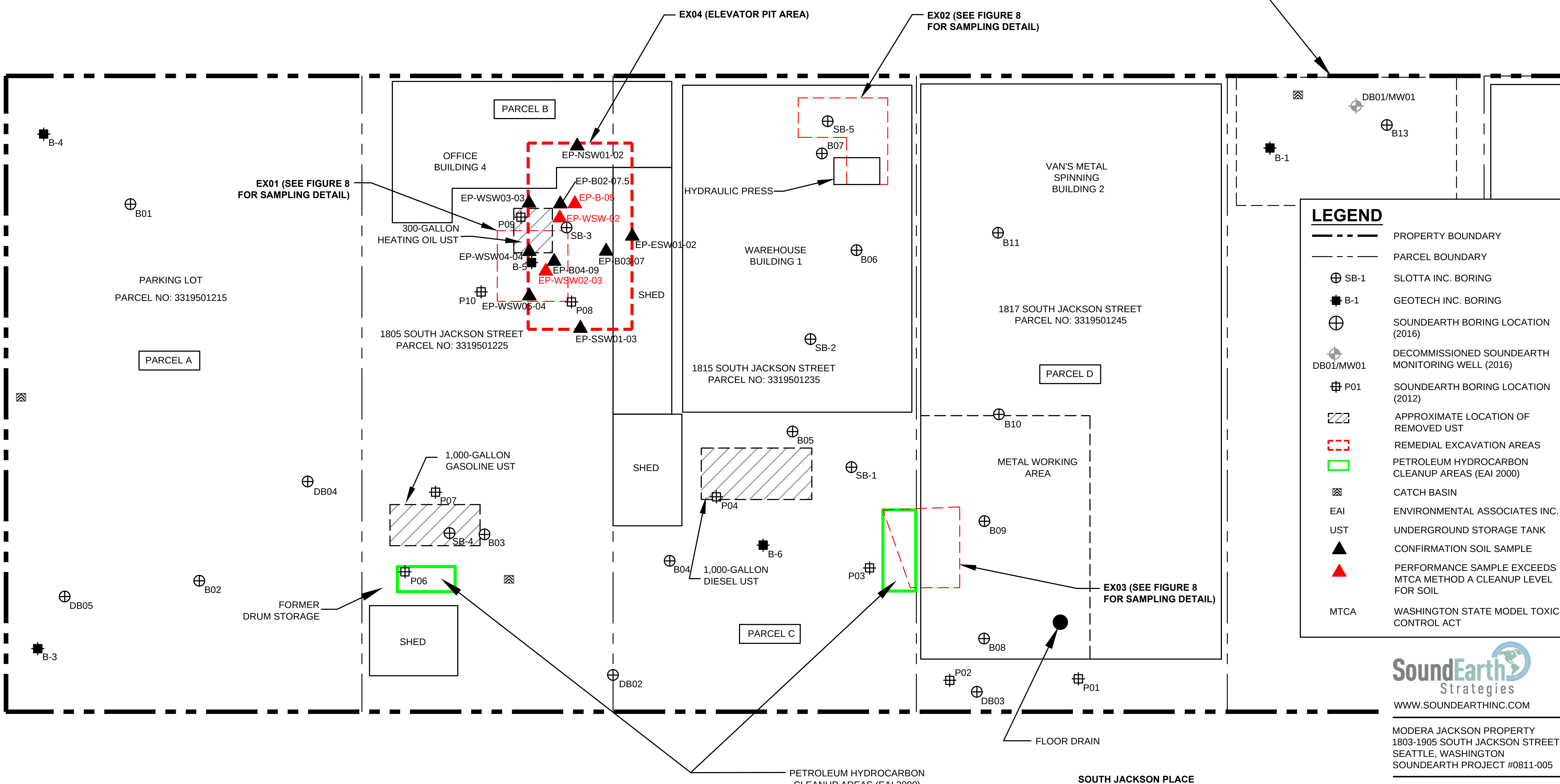
NOTE: GRAY SHADING INDICATES SOIL WAS OVEREXCAVATED AND RESAMPLED

N

0 10 20

APPROXIMATE SCALE IN FEET

SOUTH JACKSON STREET



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MODERA JACKSON PROPERTY
1803-1905 SOUTH JACKSON STREET
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0811-005

FIGURE 9
REMEDIAL EXCAVATION AREA EX04 (ELEVATOR PIT) SOIL SAMPLING ANALYTICAL RESULTS

P:\0811 MILL CREEK RESIDENTIAL TRUST LLC\0811-005 18TH & JACKSON\TECHNICAL\CAD\2018\RICAR\0811-005_2018_EPSD.DWG

TABLES

Table 1
Soil Analytical Results for TPH, VOCs, PCBs, and RCRA 8 Metals
Modera Jackson Property
1803 to 1905 South Jackson Street
Seattle, Washington

Sample Location	Sample ID	Sampled By	Sample Date	Sample Depth (feet bgs)	Analytical Results (milligrams per kilogram)																
					GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	VOCs[4]	Total PCBs[5]	Arsenic[6]	Barium[6]	Cadmium[6]	Chromium[6]	Lead[6]	Mercury[6]	Selenium[6]	Silver[6]
SB-1	B-1 @ 9'	Slotta	09/28/12	9.0	--	<25	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-2	B-2 @ 8'	Slotta	09/28/12	8.0	--	<25	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-3	B-3 @ 7.5'	Slotta	09/28/12	7.5	--	<25	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-4	B-4 @ 9'	Slotta	09/28/12	9.0	<3.0	<25	<50	<0.030	<0.050	<0.050	<0.20	--	--	--	--	--	--	--	--	--	--
SB-5	B-5 @ 4'	Slotta	09/28/12	4.0	--	110	260	--	--	--	--	ND	<0.50	3.1	--	<0.50	25	63	0.066	--	--
P01	P01-04	SoundEarth	12/13/12	4	--	<50	<250	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
	P01-15.5		12/13/12	15.5	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
P02	P02-07	SoundEarth	12/13/12	7	--	<50	<250	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
	P02-15.5		12/13/12	15.5	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
P03	P03-04	SoundEarth	12/13/12	4	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P03-07		12/13/12	7	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P04	P04-08	SoundEarth	12/13/12	8	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P05	P05-04	SoundEarth	12/13/12	4	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P05-07		12/13/12	7	--	<50	<250	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
P06	P06-10	SoundEarth	12/14/12	10	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
P07	P07-10	SoundEarth	12/14/12	10	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
P08	P08-05	SoundEarth	12/14/12	5	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P08-10		12/14/12	10	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--
P09	P09-07	SoundEarth	12/14/12	7	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P10	P10-08	SoundEarth	12/14/12	8	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P01-P05	P01-P05Comp01	SoundEarth	12/13/12	varies	--	--	--	--	--	--	--	--	--	1.56	29.0	<1	10.7	2.02	<0.1	<1	<1
P01-P10	P01-P10Comp01	SoundEarth	12/14/12	varies	--	--	--	--	--	--	--	--	--	2.02	35.7	<1	12.3	3.78	<0.1	<1	<1
B01	B01-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B02	B02-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	--	2.36	--	<1	18.3	4.43	<1	--	--
B03	B03-4.0	SoundEarth	06/02/16	4.0	<2	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	1.45	--	<1	11.6	2.2	<1	--	--
	B03-8.0			8.0	<2	--	--	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
B04	B04-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	<0.2	--	--	--	--	--	--	--	--
	B04-8.0			8.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	B04-12.0			12.0	--	--	--	<0.03	<0.05	<0.05	<0.2	ND	--	--	--	--	--	--	--	--	--
B05	B05-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	B05-10.5			10.5	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B06	B06-4.0	SoundEarth	06/01/16	4.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B07	B07-3.0	SoundEarth	06/01/16	3.0	--	<50	<250	--	--	--	--	--	<0.2	--	--	--	--	--	--	--	--
B08	B08-4.0	SoundEarth	06/01/16	4.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	B08-6.0			6.0	--	<50	<250	<0.03	<0.05	<0.05	<0.2	ND	--	--	--	--	--	--	--	--	--
B09	B09-6.0	SoundEarth	06/01/16	6.0	--	--	--	<0.03	<0.05	<0.05	<0.2	ND	--	--	--	--	--	--	--	--	--
B10	B10-6.0	SoundEarth	06/01/16	6.0	--	--	--	<0.03	<0.05	<0.05	<0.2	ND	--	--	--	--	--	--	--	--	--
B12	B12-4.0	SoundEarth	06/02/16	4.0	--	--	--	--	--	--	--	--	--	2.03	--	<1	11.2	4.72	<1	--	--
B13	B13-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	--	1.24	--	<1	12.7	<2	<1	--	--
B16	B16-4.0	SoundEarth	06/02/16	4.0	--	<50	<250	--	--	--	--	--	--	1.32	--	<1	11.4	1.63	<1	--	--
B17	B17-4.0	SoundEarth	06/01/16	4.0	--	--	--	<0.03	<0.05	<0.05	<0.2	ND	--	--	--	--	--	--	--	--	--
DB01	DB01-3.5	SoundEarth	06/21/16	3.5	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DB02	DB02-3.5	SoundEarth	06/21/16	3.5	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Level for Soil					**100**[7]	**2,000**[7]	**2,000**[7]	**0.03**[7]	**7**[7]	**6**[7]	**9**[7]	**N/A**[9]	**1**[7]	**20**[7]	**N/A**	**2**[7]	**2,000**[7]	**250**[7]	**2**[7]	**400**[8]	**400**[8]

NOTES:

SoundEarth chemical analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington. Slotta chemical analyses conducted by ALS Environmental of Everett, Washington.

[1]Analyzed by Method NWTPH-Gx.

[2]Analyzed by Method NWTPH-Dx.

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

[4]Analyzed by EPA Method 8260C. See laboratory report for list of analytes.

[5]Analyzed by EPA Method 8082A.

[6]Analyzed by EPA Method 6020 or 200.8.

[7]MTCA Cleanup Regulation, Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

[8]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Soil, Method B, Non cancer, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[9]There are multiple cleanup levels for the various VOCs included within this suite of analyses.

-- = not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
bgs = below ground surface
BTEX = benzene, toluene, ethylbenzene, and total xylenes
DRPH = diesel-range petroleum hydrocarbons
EPA = U.S. Environmental Protection Agency
GRPH = gasoline-range petroleum hydrocarbons
MTCA = Washington State Model Toxics Control Act
N/A = not applicable

ND = not detected above the laboratory reporting limit
NWPTH = Northwest Total Petroleum Hydrocarbon
ORPH = oil-range petroleum hydrocarbons
PCB = polychlorinated biphenyl
RCRA = Resource Conservation and Recovery Act
SoundEarth = SoundEarth Strategies, Inc.
Slotta = Slotta Design and Consulting
TPH = total petroleum hydrocarbons
VOC = volatile organic compound

Table 2
Groundwater Analytical Results for TPH, BTEX, and MTCA 5 Metals
Modera Jackson Property
1803 to 1905 South Jackson Street
Seattle, Washington

Sample Location	Sample ID	Sampled By	Sample Date	Analytical Results (micrograms per liter)																	
				GRPH[1]	DRPH[2]	ORPH[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Total Xylenes[3]	VOCs[4]	Arsenic[5]		Cadmium[5]		Chromium[5]		Lead[5]		Mercury[5]	
												Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved
DB01/MW01	MW01-20160623	SoundEarth	06/23/16	<100	<50	<250	<1	<1	<1	<3	--	--	--	--	--	--	--	--	--	--	--
DB02	DB02-20160621	SoundEarth	06/21/16	<100[cf]	<80	<400	<1[cf]	<1[cf]	<1[cf]	<3[cf]	--	--	--	--	--	--	--	--	--	--	--
DB04	DB04-20160902	SoundEarth	09/02/16	--	--	--	--	--	--	--	ND	**10.7**	3.03	<1	<1	**80.6**	1.14	10.0	<1	<1	<1
DB05	DB05-20160902	SoundEarth	09/02/16	--	--	--	--	--	--	--	ND	**23.2**	2.84	1.60	<1	**277**	<1	**25.7**	<1	<1	<1
MTCA Cleanup Level for Groundwater[6]				**1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**N/A[7]**	**5**		**5**		**50**		**15**		**2**	

NOTES:

Bold font indicates concentrations of total metals detected above the MTCA cleanup level as a result of turbidity in reconnaissance sample.

(1)Analyzed by Method NWTPH-Gx.

(2)Analyzed by Method NWTPH-Dx.

(3)Analyzed by EPA Method 8021B.

(4)Analyzed by EPA Method 8260C.

(5)Analyzed by EPA Method 200.8. Samples submitted for dissolved metals analysis were filtered by the laboratory prior to analysis.

(6)MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

(7)There are multiple cleanup levels for the various VOCs included within this suite of analyses.

Laboratory Note:

cfThe sample was centrifuged prior to anlaysis.

< = not detected above the laboratory reporting limit

BTEX = benzene, toluene, ethylbenzene, and total xylenes

DRPH = diesel-range petroleum hydrocarbons

EPA = U. S. Environmental Protection Agency

GRPH = gasoline-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

N/A = not applicable

NWTPH = Northwest Total Petroleum Hydrocarbon

ORPH = oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

TPH = total petroleum hydrocarbons

VOC = volatile organic compound

WAC = Washington Administrative Code

Table 3
Excavation Soil Sample Analytical Results for DRPH and ORPH
Modera Jackson Property
1803 - 1905 South Jackson Street
Seattle, Washington

Remedial Excavation Area	Sample ID	Sampled By	Date Sampled	Depth (feet bgs)	Sample Type	Analytical Results (milligrams per kilogram) DRPH[1]	ORPH[1]
Excavation Confirmation Samples							
EX01	EX01-NSW01-6	SoundEarth	02/08/17	6.0	Confirmation	<50	<250
	EX01-SSW01-6	SoundEarth	02/08/17	6.0	Confirmation	<50	<250
	EX01-ESW01-6	SoundEarth	02/08/17	6.0	Confirmation	<50	<250
	EX01-WSW01-6	SoundEarth	02/08/17	6.0	Confirmation	<50	<250
	EX01-B01-8	SoundEarth	02/08/17	8.0	Confirmation	<50	<250
	EX01-B02-8	SoundEarth	02/08/17	8.0	Confirmation	<50	<250
EX02	EX02-NSW01-4	SoundEarth	02/08/17	4.0	Confirmation	<50	<250
	EX02-SSW01-4	SoundEarth	02/08/17	4.0	Confirmation	<50	<250
	EX02-ESW01-4	SoundEarth	02/08/17	4.0	Confirmation	<50	<250
	EX02-WSW01-4	SoundEarth	02/08/17	4.0	Confirmation	<50	<250
	EX02-B02-5	SoundEarth	02/08/17	5.0	Confirmation	<50	<250
	EX02-B01-5	SoundEarth	02/08/17	5.0	Confirmation	<50	<250
EX03	EX03-B01-4	SoundEarth	02/08/17	4.0	Confirmation	<50	<250
	EX03-B02-4	SoundEarth	02/08/17	4.0	Performance	500[x]	**3,300**
	EX03-B03-6	SoundEarth	02/10/17	6.0	Confirmation	<50	<250
	EX03-NSW01-2	SoundEarth	02/08/17	2.0	Confirmation	<50	<250
	EX03-WSW01-2	SoundEarth	02/08/17	2.0	Performance	59[x]	720
	EX03-WSW02-3	SoundEarth	02/10/17	3.0	Confirmation	<50	<250
	EX03-ESW01-2	SoundEarth	02/08/17	2.0	Confirmation	<50	<250
	EX03-SSW01-2	SoundEarth	02/08/17	2.0	Confirmation	<50	<250
EX04[2] (Elevator Pit)	EP-B-05	SoundEarth	05/05/17	17.0	Performance	**2,700**	<250
	EP-B02-07.5	SoundEarth	05/08/17	19.5	Confirmation	<50	<250
	EP-B03-07	SoundEarth	05/08/17	19.0	Confirmation	<50	<250
	EP-B04-09	SoundEarth	05/22/17	21.0	Confirmation	<50	<250
	EP-NSW01-02	SoundEarth	05/08/17	14.0	Confirmation	<50	<250
	EP-SSW01-03	SoundEarth	05/08/17	15.0	Confirmation	<50	<250
	EP-ESW01-02	SoundEarth	05/08/17	14.0	Confirmation	<50	<250
	EP-WSW-02	SoundEarth	05/05/17	14.0	Performance	**11,000**	<250
	EP-WSW02-03	SoundEarth	05/08/17	15.0	Performance	**5,200**	<250
	EP-WSW03-03	SoundEarth	05/08/17	15.0	Confirmation	<50	<250
	EP-WSW04-04	SoundEarth	05/22/17	16.0	Confirmation	<50	<250
	EP-WSW05-04	SoundEarth	05/22/17	16.0	Confirmation	<50	<250
Stockpile Samples							
EX01	SP01-01	SoundEarth	02/08/17	--	--	<50	<250
	SP01-02	SoundEarth	02/08/17	--	--	<50	<250
	SP01-03	SoundEarth	02/08/17	--	--	<50	500
EX02	SP02-01	SoundEarth	02/08/17	--	--	<50	<250
	SP02-02	SoundEarth	02/08/17	--	--	<50	<250
	SP02-03	SoundEarth	02/08/17	--	--	<50	<250
EX03	SP03-01	SoundEarth	02/08/17	--	--	1,900[x]	**16,000**
	SP03-02	SoundEarth	02/08/17	--	--	83[x]	580
	SP03-03	SoundEarth	02/08/17	--	--	**3,300**[x]	**12,000**
MTCA Cleanup Level for Soil[3]						**2,000**	**2,000**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for soil.

Gray shading indicates that soil was overexcavated and resampled.

Sample analyses conducted by Friedman & Bruya, Inc. of Seattle, Washington.

[1]Analyzed by Method NWTPH-Dx.

[2]Depths in the sample ID were referenced from the grade surrounding the excavation at the time of sample collection. Actual sample depth is referenced from the pre-excavation grade.

[3]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 740-1 Method A Cleanup Levels for Soil, Unrestricted Land Uses, revised November 2007.

Laboratory Note:

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

-- = not analyzed/not applicable

< = not detected at a concentration exceeding the laboratory reporting limit

bgs = below ground surface

DRPH = diesel-range petroleum hydrocarbons

MTCA = Washington State Model Toxics Control Act

NWTPH = Northwest Total Petroleum Hydrocarbons

ORPH = oil-range petroleum hydrocarbons

SoundEarth = SoundEarth Strategies, Inc.

WAC = Washington Administrative Code

PROPERTY PHOTOGRAPHS

PROPERTY PHOTOGRAPHS

Modera Jackson Property
1803–1905 South Jackson Street
Seattle, Washington

Project No.:	0811-005-06
Date:	January 3, 2018
Drawn By:	CJT
Chk By:	CER

Photograph 1. Looking west. Location of remedial excavation area EX01 near former heating oil UST.

Photograph 2. Looking north. Location of remedial excavation area EX02 near former hydraulic press in Building 1.

Photograph 3. Looking south. Location of remedial excavation area EX03 near former leaking press machine.

Photograph 4. Looking northeast. Final extent of remedial excavation area EX01. No PCS observed.

Photograph 5. Looking north. Northern portion of remedial excavation area EX02. No PCS observed.

Photograph 6. Looking north. Gray-stained PCS visible on northwestern sidewall of remedial excavation area EX03.

Photograph 7. Looking north. Final extent of remedial excavation area EX03.

Photograph 8. Looking southeast. Loading out stockpiled class III soil from remedial excavation area EX03.

Photograph 9. Looking northwest. Final extents of EX01, EX02, and EX03 prior to mass excavation of Property.

Photograph 10. Looking northwest. Removal of asphalt for surficial soil screening.

Photograph 11. Looking southwest. Gray-stained PCS visible on bottom and west sidewall of elevator pit area.

Photograph 12. Looking south. Removal of remaining PCS on west sidewall of elevator pit once elevator footing is in place.

APPENDIX A
BORING LOGS

SoundEarth Strategies

BORING LOG B01

Project: 18th and Jackson Property
Project Number: 0811-005
Logged by: CJT
Date Started: 6/2/16
Surface Conditions: Asphalt
Well Location N/S: 21' S of NW parcel corner
Well Location E/W: 22' E of NW parcel corner
Reviewed by: CER
Date Completed: 6/2/16

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		**Asphalt**	
						SM		**Moist, medium dense, silty SAND, trace fine gravel, brown, no hydrocarbon odor (45-50-5).**	
				2.6					
			75					**Moist, medium dense, fine to medium SAND, little silt, little gravel, brown, no hydrocarbon odor (20-65-15).**	
				2.9					
					B01-4.0				
						SP		**Moist, medium dense, fine to medium SAND, little silt, light brown, no hydrocarbon odor (15-85-0).**	
5				3.6		SM		**Moist, dense, fine SAND, some silt, trace gravel, brown, no hydrocarbon odor (30-65-5).**	
			100			ML		**Moist, stiff SILT, trace fine to medium sand, light brown, no hydrocarbon odor (90-10-0).**	
				3.8					
					B01-8.0				
								Boring terminated at 8 feet below ground surface, backfilled with bentonite and patched with asphalt.	
10									
15									

Drilling Co./Driller:	Standard Probe/Chris	
Drilling Equipment:	GeoProbe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	8	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/2	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Asphalt	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/2/16
Surface Conditions:	Asphalt
Well Location N/S:	23' N of SW parcel corner
Well Location E/W:	36' E of SW parcel corner
Reviewed by:	CER
Date Completed:	6/2/16

BORING LOG B02

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling	--	feet bgs
Water Depth After Completion	--	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Asphalt**		**Asphalt**	
						SP		**Dry, loose SAND, some silt, some gravel, dark brown, no hydrocarbon odor (25-50-25).**	
				4.2					
			100			**SM**		**Dry, medium dense, silty SAND, little gravel, brown with orange mottling, no hydrocarbon odor (35-50-15).**	
				2.4					
					B02-4.0				
5				1.9					
			100			**SP**		**Dry, medium dense, fine to medium SAND, little silt, trace gravel, brown/orange, no hydrocarbon odor (15-80-5).**	
				1.5					
					B02-8.0				
10									
15									

Drilling Co./Driller:	Standard Probe/Chris		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	GeoProbe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	8	feet bgs	**Surface Seal:**	Asphalt	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property		
Project Number:	0811-005		
Logged by:	CJT		
Date Started:	6/2/16		
Surface Conditions:	Asphalt		
Well Location N/S:	7' N of catch basin		
Well Location E/W:	7' W of catch basin		
Reviewed by:	CER		
Date Completed:	6/2/16		

BORING LOG **B03**

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Asphalt**		**Asphalt**	
						SP		**Moist, medium dense SAND, some gravel, little silt, trace coal, brown, no hydrocarbon odor (20-50-30).**	
				2.3					
			50						
					B03-4.0	**SP**		**Moist, medium dense SAND, some gravel, little silt, brown, no hydrocarbon odor (20-45-35).**	
5			50	2.1					
						SM		**Moist, very dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (35-50-15).**	
			100	2.3					
					B03-8.0			**Moist, dense, fine to medium SAND, little to some silt, little gravel, light brown/tan, no hydrocarbon odor (25-60-15).**	
			100						
				2.5					
10									
						ML		**Moist, medium stiff SILT, little sand, brown/tan, no hydrocarbon odor (80,20,0).**	
			100	2.1		**SP**		**Moist, medium dense, gravelly SAND, little silt, brown, no hydrocarbon odor (25-40-35).**	
					B03-12.0				
								Boring terminated at 12 feet below ground surface, backfilled with bentonite and patched with asphalt.	
15									

Drilling Co./Driller:	Standard Probe/Chris		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	GeoProbe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	12	feet bgs	**Surface Seal:**	Asphalt	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Project: 18th and Jackson Property
Project Number: 0811-005
Logged by: CJT
Date Started: 6/2/16
Surface Conditions: Asphalt
Well Location N/S: 28' S of SW corner of building
Well Location E/W: 6' W of SW corner of building
Reviewed by: CER
Date Completed: 6/2/16

BORING LOG B04

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		**Asphalt**	
						SP		**Moist, medium dense SAND, some gravel, little silt, brown, no hydrocarbon odor (15-50-35).**	
				2.4					
			75			SM		**Moist, medium dense SAND, some silt, trace fine gravel, light brown, no hydrocarbon odor (30-65-5).**	
				1.9					
					B04-4.0	SM		**Moist, medium dense SAND, some silt, trace fine gravel, light brown, no hydrocarbon odor (30-65-5).**	
5				2.9					
						SP		**Moist, dense SAND, little silt, trace gravel, light brown/tan, no hydrocarbon odor (20-75-5).**	
			100						
				2.2				**Moist, dense SAND, little silt, trace gravel, light brown with orange mottling, no hydrocarbon odor (20-75-5).**	
					B04-8.0	SM		**Wet, medium dense SAND, some silt, brown, no hydrocarbon odor (35-60-5).**	
			100	2.7		SP-GP		**Dry, dense SAND and GRAVEL, some silt, brown, no hydrocarbon odor (20-40-40).**	
10			100	3.1					
			100		B04-12.0			**Dry, very dense SAND and GRAVEL, some silt, brown, no hydrocarbon odor (20-40-40).**	
								Boring terminated at 12 feet below ground surface, backfilled with bentonite and patched with asphalt.	
15									

Drilling Co./Driller:	Standard Probe/Chris	
Drilling Equipment:	GeoProbe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	12	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/2	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Asphalt	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/2/16
Surface Conditions:	Asphalt
Well Location N/S:	3.5' S of SE building corner
Well Location E/W:	22' W of SE building corner
Reviewed by:	CER
Date Completed:	6/2/16

BORING LOG B05

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		**Asphalt**	
						GM-SM		**Dry, loose SAND and GRAVEL, little silt, brown, no hydrocarbon odor (20-40-40).**	
				2.1					
			50						
					B05-4.0				
						SP		**Dry, medium dense SAND, little silt, little gravel, light brown/tan, no hydrocarbon odor (15-70-15).**	
5				2.0					
						SM		**Dry to moist, dense, silty SAND, little gravel, no hydrocarbon odor (40-50-10).**	
			75						
				2.1					
					B05-8.0				
						SM		**Dry to moist, dense, silty SAND, little gravel, no hydrocarbon odor (40-50-10).**	
			100	1.8					
								Moist, dense, fine to medium SAND, some silt, trace gravel, light brown, no hydrocarbon odor (25-70-5).	
10			100		B05-10.5				
								Boring terminated at 10.5 feet below ground surface, backfilled with bentonite and patched with asphalt.	
15									

Drilling Co./Driller:	Standard Probe/Chris	
Drilling Equipment:	GeoProbe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	10.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/2	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Asphalt	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	31' N of SE corner of building
Well Location E/W:	11' W of SE corner of building
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG **B06**

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Concrete**		**Concrete slab**	
						SM		**Dry, loose, silty SAND, trace gravel, brown, no hydrocarbon odor (40-55-5).**	
			75	2.3					
						SM		**Dry, loose, silty SAND, little fine gravel, light brown/tan, no hydrocarbon odor (40-50-10).**	
			100	2.2					
					B06-4.0				
								Dry, medium dense, silty SAND, little fine gravel, light brown/tan, no hydrocarbon odor (35-55-10).	
5			100	2.4					
								Dry, loose, silty SAND, little fine gravel, light brown/tan, no hydrocarbon odor (35-55-10).	
								Dry, dense SAND, some silt, little fine gravel, light brown, no hydrocarbon odor (30-60-10).	
			100	2.0					
					B06-8.0				
								Boring terminated at 8 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell	
Drilling Equipment:	Hand Probe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	8	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/1	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

BORING LOG B07

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	50' N of SE corner of building
Well Location E/W:	14' W of SE corner of building
Reviewed by:	CER
Date Completed:	6/1/16

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling	--	feet bgs
Water Depth After Completion	--	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Concrete		**Concrete slab**	
			25	1.8		SM		**Dry, loose, SAND, some silt, little fine gravel, light brown, no hydrocarbon odor (30-60-10).**	
			100	2.6	B07-3.0	SM		**Dry, loose, silty SAND, trace fine gravel, light brown, no hydrocarbon odor (40-55-5).**	
5			100	2.3	B07-6.0			**Moist, dense SAND, some silt, trace gravel, brown/gray, no hydrocarbon odor (30-65-5).**	
								Refusal at 6 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell	
Drilling Equipment:	Hand Probe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	6	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/1	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project: 18th and Jackson Property
Project Number: 0811-005
Logged by: CJT
Date Started: 6/1/16
Surface Conditions: Concrete
Well Location N/S: 5' N of SW corner of building
Well Location E/W: 14' E of SW corner of building
Reviewed by: CER
Date Completed: 6/1/16

BORING LOG B08

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling: -- feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Concrete		**Concrete slab**	
			25	1.6		SP		**Dry, loose, fine to coarse SAND, little silt, trace fine gravel, gray, no hydrocarbon odor (15-80-5).**	
			100	1.6		SP		**Dry, loose, fine to coarse SAND, little silt, trace fine gravel, gray/brown, no hydrocarbon odor (10-85-5).**	
					B08-4.0	SM		**Dry, loose, silty SAND, trace fine gravel, trace brick, red/brown, no hydrocarbon odor (35-60-5).** **Dry, medium dense, silty SAND, trace fine gravel, brown, no hydrocarbon odor (40-55-5).**	
5			100	2.0	B08-6.0	ML		**Dry, stiff to very stiff SILT, some sand, trace fine gravel, brown, no hydrocarbon odor (55-40-5).**	
								Refusal at 6 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell	
Drilling Equipment:	Hand Probe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	6	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/1	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	24' N of SW corner of building
Well Location E/W:	10' E of SW corner of building
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG B09

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Concrete**		**Concrete slab**	
			25	1.1		**SM**		**Dry, loose, silty SAND, trace fine gravel, brown, no hydrocarbon odor (40-55-5).**	
			100	1.6	B09-3.0	**SM**		**Dry, loose SAND, some silt, little fine gravel, brown/red, no hydrocarbon odor (30-60-10).**	
								Dry, loose SILT and SAND, little fine gravel, brown, no hydrocarbon odor (45-45-10).	
5			75	2.2	B09-6.0			**Dry, dense SAND, some silt, little fine gravel, brown, no hydrocarbon odor (40-50-10).**	
								Refusal at 6 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell	
Drilling Equipment:	Hand Probe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	6	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/1	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	42.5' N of SW corner of building
Well Location E/W:	14' E of SW corner of building
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG **B10**

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Concrete		**Concrete slab**	
			20	1.6		SM		**Dry, loose SILT and SAND, trace fine gravel, light brown, no hydrocarbon odor (46-46-8).**	
			100	2.0	B10-3.0	SM		**Dry, medium dense to very dense, silty SAND, trace fine gravel, light brown/tan, no hydrocarbon odor (45-50-0).**	
5			100	1.5	B10-6.0			**Dry, dense to very dense, silty SAND, little fine gravel, light brown, no hydrocarbon odor (40-45-15).**	
								Refusal at 6 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell		**Well/Auger Diameter:**	--/1	inches
Drilling Equipment:	Hand Probe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	6	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	75' N of SW corner of building
Well Location E/W:	13' E of SW corner of building
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG **B11**

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling	--	feet bgs
Water Depth After Completion	--	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Concrete		**Concrete slab**	
			75	1.4		SM		**Dry, loose to medium dense SAND, some silt, trace fine gravel, light brown, no hydrocarbon odor (35-60-5).**	
			100	1.1	B11-2.5	ML-SM		**Dry, stiff SILT, some sand, trace fine gravel, light brown, no hydrocarbon odor (50-45-5).**	
5			100	1.2	B11-5.0				
								Refusal at 5.5 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell		**Well/Auger Diameter:**	--/1	inches	**Notes/Comments:**
Drilling Equipment:	Hand Probe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	5.5	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/2/16
Surface Conditions:	Asphalt
Well Location N/S:	22' N of SE corner of building to west
Well Location E/W:	25' E of SE corner of building to west
Reviewed by:	CER
Date Completed:	6/2/16

BORING LOG B12

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Asphalt**		**Asphalt**	
				0.7		**SP**		**Dry, loose SAND, some gravel, little silt, trace coal, brown to gray, no hydrocarbon odor (15-50-35).**	
				0.6					
			50						
					B12-4.0	**SP**		**Dry, loose SAND, some gravel, little silt, trace coal, brown to gray, no hydrocarbon odor (15-50-35).**	
5			100	0.4		**SM**		**Dry, medium dense, silty SAND, little fine gravel, light brown/tan, no hydrocarbon odor (35-50-15).**	
								Dry, dense SAND, some silt, little to some gravel, light brown/tan, no hydrocarbon odor (25-50-25).	
			100	1.9	B12-8.0				
								Dry, dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (35-50-15).	
10			100	2.1					
			100	1.5	B12-11.5				
								Boring terminated at 11.5 feet below ground surface, backfilled with bentonite and patched with asphalt.	
15									

Drilling Co./Driller:	Standard Probe/Chris		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	GeoProbe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	11.5	feet bgs	**Surface Seal:**	Asphalt	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

Project: 18th and Jackson Property
Project Number: 0811-005
Logged by: CJT
Date Started: 6/2/16
Surface Conditions: Asphalt
Well Location N/S: 1' N of catch basin
Well Location E/W: 16.5' E of catch basin
Reviewed by: CER
Date Completed: 6/2/16

BORING LOG B13

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling: -- feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						Asphalt		**Asphalt**	
						SM		**Dry, loose SAND, some silt, little gravel, orange/tan, no hydrocarbon odor (30-60-10).**	
				1.7					
			75					**Dry, dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (30-55-15).**	
				1.8					
					B13-4.0				
			100	1.6		SM		**Dry, very dense, silty SAND, trace fine gravel, light brown/tan, no hydrocarbon odor (40-55-5).**	
5								**Dry, very dense, silty SAND, little fine gravel, light brown/tan, no hydrocarbon odor (40-50-10).**	
			100	1.5					
								Dry, very dense, silty SAND, little to some fine to medium gravel, light brown/tan, no hydrocarbon odor (35-40-25).	
			100	2.0	B13-8.0				
			100	1.3				**Moist, very dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (30-55-15).**	
10									
			100	2.3				**Moist, very dense SAND, some silt, trace fine gravel, light brown/tan, no hydrocarbon odor (30-65-5).**	
								Dry, medium dense, medium to coarse SAND, trace silt, light brown, no hydrocarbon odor (5-95-0).	
			100	1.8	B13-12.0	SP			
						SM		**Dry, very dense SAND, some silt, trace fine gravel, light brown, no hydrocarbon odor (30-65-5).**	
15								**Boring terminated at 13 feet below ground surface, backfilled with bentonite and patched with asphalt.**	

Drilling Co./Driller: Standard Probe/Chris
Drilling Equipment: GeoProbe
Sampler Type: Core tube
Hammer Type/Weight: -- lbs
Total Boring Depth: 13 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: --/2 inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: Asphalt
Annular Seal: Bentonite
Monument Type: --

Notes/Comments:

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Concrete
Well Location N/S:	21' N of SW corner of building
Well Location E/W:	24' E of SW corner of building
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG B14

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling	--	feet bgs
Water Depth After Completion	--	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**Concrete**		**Concrete slab**	
			100	1.6		**SM**		**Dry, medium dense SAND and SILT, trace gravel, light brown, no hydrocarbon odor (47-47-6).**	
			100	1.6	B11-3.0			**Dry, medium dense, silty fine SAND, trace fine gravel, light brown, no hydrocarbon odor (40-55-5).**	
5			100	1.3	B11-5.5			**Dry, medium dense to dense, silty SAND, trace fine gravel, light brown, no hydrocarbon odor (45-50-5).**	
								Refusal at 5.5 feet below ground surface, backfilled with bentonite and patched with concrete.	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell	
Drilling Equipment:	Hand Probe	
Sampler Type:	Core tube	
Hammer Type/Weight:	--	lbs
Total Boring Depth:	5.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/1	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

Project:	18th and Jackson Property	**BORING LOG**	**B15**
Project Number:	0811-005	**Site Address:**	1803-1905 South Jackson Street, Seattle, Washington
Logged by:	CJT	**Water Depth At Time of Drilling**	-- feet bgs
Date Started:	6/2/16	**Water Depth After Completion**	-- feet bgs
Surface Conditions:	Gravel		
Well Location N/S:	23' S of SW corner of building		
Well Location E/W:	5' W of SW corner of building		
Reviewed by:	CER		
Date Completed:	6/2/16		

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						**SP**		**Dry, loose SAND, little silt, little gravel, dark brown, no hydrocarbon odor (20-60-20).**	
				1.8				**Dry, loose SAND, some gravel, little silt, trace brick fragments, brown, no hydrocarbon odor (15-60-25).**	
			100						
				1.9		**SM**		**Dry, medium dense SAND, some silt, trace fine gravel, light brown/tan, no hydrocarbon odor (30-65-5).**	
					B15-4.0				
5			100	1.6				**Moist, dense to very dense, silty SAND, little gravel, light brown/tan, no hydrocarbon odor (40-55-5).**	
			100	1.9				**Moist, very dense SAND, some silt, trace fine gravel, light brown/tan, no hydrocarbon odor (35-60-5).**	
					B15-8.0				
			100	1.6				**Moist, very dense SAND, some silt, little gravel, light brown, no hydrocarbon odor (35-55-10).**	
10								**Boring terminated at 9 feet below ground surface, backfilled with bentonite.**	
15									

Drilling Co./Driller:	Standard Probe/Chris		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	GeoProbe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	9	feet bgs	**Surface Seal:**	Bentonite	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

BORING LOG B16

Project: 18th and Jackson Property
Project Number: 0811-005
Logged by: CJT
Date Started: 6/2/16
Surface Conditions: Gravel
Well Location N/S: 23' S of SE corner of building
Well Location E/W: 1' E of SE corner of building
Reviewed by: CER
Date Completed: 6/2/16

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling -- feet bgs
Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0						SM		**Dry, loose SAND, some silt, little gravel, dark brown, no hydrocarbon odor (30-55-15).**	
				0.6				**Dry, medium dense SAND, some silt, little gravel, light brown/orange, no hydrocarbon odor (30-55-15).**	
			75					**Dry, dense SAND, some silt, trace fine gravel, light brown/tan, no hydrocarbon odor (30-65-5).**	
				0.5					
					B16-4.0	SM		**Moist, very dense SAND, some silt, trace fine gravel, light brown/tan, no hydrocarbon odor (25-70-5).**	
5			100	0.7					
			100	1.0	B16-7.5			**Dry, very dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (30-60-10).**	
			100	1.0				**Dry, very dense SAND, some silt, little gravel, light brown/tan, no hydrocarbon odor (30-55-15).**	
			100	1.1					
10			100			SM-ML		**Dry, very dense, silty SAND, little gravel, light brown/tan, no hydrocarbon odor (40-50-10).**	
				1.0					
			100	1.2	B16-12.0				
				0.9					
15								**Boring terminated at 13 feet below ground surface, backfilled with bentonite.**	

Drilling Co./Driller:	Standard Probe/Chris		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	GeoProbe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	13	feet bgs	**Surface Seal:**	Bentonite	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/1/16
Surface Conditions:	Carpet/concrete
Well Location N/S:	Approximate center of building
Well Location E/W:	--
Reviewed by:	CER
Date Completed:	6/1/16

BORING LOG B17

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0			5			**Concrete**		**Concrete slab** **No recovery**	
			100	1.6 1.6	B17-2.0 B17-4.0	**SM**		**Dry, medium dense to dense, silty SAND, trace fine gravel, brown/gray, no hydrocarbon odor (40-55-5).**	
5								**Refusal at 4 feet below ground surface, backfilled with bentonite and patched with concrete.**	
10									
15									

Drilling Co./Driller:	Standard Probe/Russell		**Well/Auger Diameter:**	--/1	inches	**Notes/Comments:**
Drilling Equipment:	Hand Probe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	Core tube		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	4	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/21/16
Surface Conditions:	Asphalt
Well Location N/S:	0.5' N of B13
Well Location E/W:	4' W of B13
Reviewed by:	CER
Date Completed:	6/21/16

BORING LOG **DB01** MW01

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling 33 feet bgs

Water Depth After Completion 34.32 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0									
		50/6"	100	1.0	DB01-3.5	SM		**Dry, dense, silty SAND, little fine to medium gravel, light brown/tan, no hydrocarbon odor (30-55-15).**	
5									
		50/6"	100	1.1	DB01-8.5	SM		**Dry, medium dense to dense, silty SAND, little gravel, light brown/tan, no hydrocarbon odor (40-50-10).**	
10									
		50/6"	100	1.1	DB01-13.5	ML-SM		**Moist, dense SILT and SAND, little fine to medium gravel, light brown/tan, no hydrocarbon odor (45-45-10).**	
15									

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames and Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	38	feet bgs
Total Well Depth:	38	feet bgs
State Well ID No.:	BJY 047	

Well/Auger Diameter:	2/8	inches
Well Screened Interval:	28-38	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	Silica sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/21/16
Surface Conditions:	Asphalt
Well Location N/S:	0.5' N of B13
Well Location E/W:	4' W of B13
Reviewed by:	CER
Date Completed:	6/21/16

BORING LOG **DB01** MW01

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling 33 feet bgs

Water Depth After Completion 34.32 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15									
20		50/6"	100	0.4	DB01-18.5	SM		**Moist, very dense, fine SAND, some silt, little fine gravel, light brown/tan, no hydrocarbon odor (30-60-10).**	
25		50/6"	100	1.1	DB01-23.5	SP		**Moist, dense, fine to medium SAND, little silt, little fine to medium gravel, light brown/tan, no hydrocarbon odor (15-70-15).**	
30		50/6"	100	1.0	DB01-28.5	SP		**Moist, medium dense to dense, fine to medium SAND, little silt, trace fine gravel, light brown/tan, no hydrocarbon odor (15-80-5).**	

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames and Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	38	feet bgs
Total Well Depth:	38	feet bgs
State Well ID No.:	BJY 047	

Well/Auger Diameter:	2/8	inches
Well Screened Interval:	28-38	feet bgs
Screen Slot Size:	0.010	inches
Filter Pack Used:	Silica sand	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	Flush mount	

Notes/Comments:

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/21/16
Surface Conditions:	Asphalt
Well Location N/S:	0.5' N of B13
Well Location E/W:	4' W of B13
Reviewed by:	CER
Date Completed:	6/21/16

BORING LOG **DB01** MW01

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling: 33 feet bgs

Water Depth After Completion: 34.32 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
30									
		26 50/6"	100	1.0	DB01-33.5	SP-SM		**Wet, medium dense, fine to medium SAND, little silt, trace fine to medium gravel, thin lenses of silt with sand, light brown/tan, no hydrocarbon odor (20-75-5).**	
35									
								Boring terminated at 38 feet below ground surface and completed as MW01.	
40									
45									

Drilling Co./Driller:	Cascade/Frank		**Well/Auger Diameter:**	2/8	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	28-38	feet bgs
Sampler Type:	Dames and Moore		**Screen Slot Size:**	0.010	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	Silica sand	
Total Boring Depth:	38	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	38	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	BJY 047		**Monument Type:**	Flush mount	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/21/16
Surface Conditions:	Asphalt
Well Location N/S:	32' S of SW corner of shed
Well Location E/W:	1' W of SW corner of shed
Reviewed by:	CER
Date Completed:	6/21/16

BORING LOG **DB02**

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling	19	feet bgs
Water Depth After Completion	24	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0									
5		25 38 50/6"	100	1.6	DB02-3.5	SM		**Moist, medium dense SAND, some silt, some fine to coarse gravel, brown, no hydrocarbon odor (25-50-25).**	
10		50/6"	100	1.8	DB02-8.5	SP/GP		**Moist, dense, gravelly SAND, little silt, brown, no hydrocarbon odor (15-45-40).**	
15		50/6"	50	2.3	DB02-13.5	GP		**Moist, very dense GRAVEL, little sand, little silt, brown, no hydrocarbon odor (15-20-65).**	

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames and Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	25	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	Concrete	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	6/21/16
Surface Conditions:	Asphalt
Well Location N/S:	32' S of SW corner of shed
Well Location E/W:	1' W of SW corner of shed
Reviewed by:	CER
Date Completed:	6/21/16

BORING LOG **DB02**

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling 19 feet bgs

Water Depth After Completion 24 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
15									
18.5–20	X	34 50/6"	100	1.6	DB02-18.5	SP/GP SP		**Wet, dense, gravelly SAND, little silt, brown, no hydrocarbon odor (15-50-35).** **Wet, medium dense SAND, little silt, trace fine gravel, brown, no hydrocarbon odor (15-80-5).**	▽
20									
23.5–25	X	50/6"	100	2.4	DB02-24.0	SP/GP		**Wet, dense, gravelly SAND, little silt, brown, no hydrocarbon odor (15-50-35).**	▼
25								**Boring terminated at 25 feet below ground surface. Reconnaissance groundwater sample DB02-20160621 collected. Boring backfilled with bentonite.**	
30									

Drilling Co./Driller:	Cascade/Frank		**Well/Auger Diameter:**	--/8	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Dames and Moore		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	25	feet bgs	**Surface Seal:**	Concrete	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	8' S of SW building corner
Well Location E/W:	11' E of SW building corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG **DB03**

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling -- feet bgs

Water Depth After Completion -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0									
5	X	55/6"	50	0.0	DB03-5.0	**SM**		**Dry, medium dense, silty SAND, little fine gravel, light brown, no hydrocarbon odor (35-55-10).**	
10	X	30 50/6"	100	0.0	DB03-10.0	**SM**		**Dry, dense SAND, some silt, little fine gravel, light brown, no hydrocarbon odor (30-60-10).**	
15	X	50/6"	100	0.0	DB03-15.0	**SM**		**Moist, dense SAND, some silt, trace fine gravel, light brown, no hydrocarbon odor (30-65-5).**	
20									

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames & Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	36.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	--	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	8' S of SW building corner
Well Location E/W:	11' E of SW building corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG **DB03**

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling: -- feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
20		14 20 25	100	0.1	DB03-20.0	SP		**Dry to moist, loose SAND, trace to little silt, light brown, no hydrocarbon odor (15-85-0).**	
25		50/6"	100	0.0	DB03-25.0	ML		**Moist, very stiff SILT, little fine sand, trace clay, light brown, no hydrocarbon odor (85-15-0).**	
30		50/6"	100	0.0	DB03-30.0	ML		**Moist, very stiff SILT, little clay, trace fine sand, gray, no hydrocarbon odor (95-5-0).**	
35		25 50/6"	100	0.0		ML		**Moist, very stiff SILT, little clay, trace fine sand, gray, no hydrocarbon odor (95-5-0).**	
								Boring terminated at 36.5 feet below ground surface, backfilled with bentonite.	
40									

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames & Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	36.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	--	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	35' N of SE fence corner
Well Location E/W:	9' W of SE fence corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG DB04

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling: 36 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0									
5		18 25 30	90	0.5	DB04-5.0	**SM**		**Moist, medium dense SAND, some silt, little fine to medium gravel, light brown, no hydrocarbon odor (30-60-10).**	
10		50/6"	60	0.2	DB04-10.0	**SM**		**Dry to moist, dense SAND, some silt, little to some fine to medium gravel, light brown, no hydrocarbon odor (30-45-25).**	
15		25 50/6"	100	0.2	DB04-15.0	**SP**		**Dry to moist, loose SAND, trace silt, trace fine gravel, light brown, no hydrocarbon odor (5-90-5).**	
20									

Drilling Co./Driller:	Cascade/Frank		**Well/Auger Diameter:**	--/8	inches
Drilling Equipment:	HSA		**Well Screened Interval:**	--	feet bgs
Sampler Type:	Dames & Moore		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	140	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	36.5	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	35' N of SE fence corner
Well Location E/W:	9' W of SE fence corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG DB04

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling: 36 feet bgs

Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
20		50/6"	100	0.0		SP		**Dry to moist, medium dense SAND, trace silt, light brown, no hydrocarbon odor (5-95-0).**	
25		50/6"	100	0.0	DB04-25.0	SP		**Dry to moist, medium dense, fine to medium SAND, little silt, light brown, no hydrocarbon odor (15-85-0).**	
30		50/6"	100	0.0		SP		**Dry to moist, medium dense SAND, little silt, light brown, no hydrocarbon odor (15-85-0).**	
						SM		**Dry to moist, medium dense, fine SAND, some silt, light brown, no hydrocarbon odor (40-60-0).**	
35		50/6"	100	0.2	DB04-35.0	ML		**Moist, medium stiff SILT, little sand, light brown, no hydrocarbon odor (80-20-0).**	
						SM		**Wet, medium stiff SILT and fine SAND, light brown, no hydrocarbon odor (50-50-0).**	▽
								Boring terminated at 36.5 feet below ground surface. Reconnaissance groundwater sample DB04-20160902 collected. Boring backfilled with bentonite.	
40									

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames & Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	36.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	--	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

SoundEarth Strategies

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	8' N of SW fence corner
Well Location E/W:	12' E of SW fence corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG DB05

Site Address: 1803-1905 South Jackson Street, Seattle, Washington

Water Depth At Time of Drilling	34	feet bgs
Water Depth After Completion	--	feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
0									
5		8 10 10	100	0.0	DB05-5.0	**SM**		**Dry, medium dense, silty SAND, little fine to medium gravel, light brown, no hydrocarbon odor (40-45-15).**	
10		50/6"	100	0.0	DB05-10.0	**SP/GP**		**Dry, dense SAND, some gravel, little silt, light brown, no hydrocarbon odor (20-45-35).**	
15		50/6"	100	0.7	DB05-15.0	**SM** **SP**		**Dry, dense SAND, little to some gravel, little silt, light brown, no hydrocarbon odor (25-50-25).** **Dry to moist, loose, fine to medium SAND, trace silt, light brown, no hydrocarbon odor (5-95-0).**	
20									

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames & Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	36.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	--	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

Project:	18th and Jackson Property
Project Number:	0811-005
Logged by:	CJT
Date Started:	9/2/16
Surface Conditions:	Asphalt
Well Location N/S:	8' N of SW fence corner
Well Location E/W:	12' E of SW fence corner
Reviewed by:	CER
Date Completed:	9/2/16

BORING LOG DB05

Site Address: 1803-1905 South Jackson Street
Seattle, Washington

Water Depth At Time of Drilling: 34 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Detail/ Water Depth
20		50/6"	100	0.0		SM SM/ML		**Dry to moist, medium dense SAND, little to some silt, trace fine gravel, light brown, no hydrocarbon odor (25-70-5).** **Moist, dense, fine SAND with silt, trace gravel, light brown, no hydrocarbon odor (40-55-5).**	
25		50/6"	100	0.0	DB05-25.0	SP		**Dry, loose, fine to coarse SAND, little fine gravel, light brown to tan, no hydrocarbon odor (0-90-10).** **Dry, loose to medium dense, fine SAND, little silt, trace fine gravel, light brown, no hydrocarbon odor (10-85-5).**	
30		50/6"	50	0.0		SP		**Moist, medium dense, fine to medium SAND, little silt, light brown, no hydrocarbon odor (10-90-0).**	
35		50/6"	100	0.6	DB04-35.0	SP		**Wet, medium dense, fine to medium SAND, little silt, light brown, no hydrocarbon odor (10-90-0).**	
40								**Boring terminated at 36.5 feet below ground surface. Reconnaissance groundwater sample DB05-20160902 collected. Boring backfilled with bentonite.**	

Drilling Co./Driller:	Cascade/Frank	
Drilling Equipment:	HSA	
Sampler Type:	Dames & Moore	
Hammer Type/Weight:	140	lbs
Total Boring Depth:	36.5	feet bgs
Total Well Depth:	--	feet bgs
State Well ID No.:	--	

Well/Auger Diameter:	--/8	inches
Well Screened Interval:	--	feet bgs
Screen Slot Size:	--	inches
Filter Pack Used:	--	
Surface Seal:	--	
Annular Seal:	Bentonite	
Monument Type:	--	

Notes/Comments:

APPENDIX B
LABORATORY ANALYTICAL REPORTS

Remedial Investigation - Soil Laboratory Analytical Reports

Friedman & Bruya, Inc. #606020

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 13, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Roberts:

Included are the results from the testing of material submitted on June 2, 2016 from the SOU_0811-005-01_ 20160602, F&BI 606020 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
c: Clare Tochilin
SOU0613R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 2, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005-01_ 20160602, F&BI 606020 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
606020 -01	B06-4.0
606020 -02	B06-8.0
606020 -03	B07-3.0
606020 -04	B07-6.0
606020 -05	B08-4.0
606020 -06	B08-6.0
606020 -07	B09-3.0
606020 -08	B09-6.0
606020 -09	B10-3.0
606020 -10	B10-6.0
606020 -11	B11-2.5
606020 -12	B14-3.0
606020 -13	B14-5.5
606020 -14	B17-2.0
606020 -15	B17-4.0

All quality control requirements were acceptable.

Date of Report: 06/13/16
Date Received: 06/02/16
Project: SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted: 06/06/16
Date Analyzed: 06/06/16

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 56-165)
B06-4.0 606020-01	<50	<250	94
B07-3.0 606020-03	<50	<250	93
B08-4.0 606020-05	<50	<250	91
B08-6.0 606020-06	<50	<250	91
Method Blank 06-1148 MB	<50	<250	93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B08-6.0	Client:	SoundEarth Strategies
Date Received:	06/02/16	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/03/16	Lab ID:	606020-06
Date Analyzed:	06/03/16	Data File:	060336.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	107	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B09-6.0	Client:	SoundEarth Strategies
Date Received:	06/02/16	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/03/16	Lab ID:	606020-08
Date Analyzed:	06/03/16	Data File:	060337.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	107	55	145
4-Bromofluorobenzene	103	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B10-6.0	Client:	SoundEarth Strategies
Date Received:	06/02/16	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/03/16	Lab ID:	606020-10
Date Analyzed:	06/03/16	Data File:	060338.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	62	142
Toluene-d8	108	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B17-4.0	Client:	SoundEarth Strategies
Date Received:	06/02/16	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/03/16	Lab ID:	606020-15
Date Analyzed:	06/04/16	Data File:	060339.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	62	142
Toluene-d8	108	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/03/16	Lab ID:	06-1089 mb
Date Analyzed:	06/03/16	Data File:	060327.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	142
Toluene-d8	107	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B07-3.0	Client:	SoundEarth Strategies
Date Received:	06/02/16	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/08/16	Lab ID:	606020-03 1/50
Date Analyzed:	06/09/16	Data File:	060830.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	75 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0811-005-01_ 20160602, F&BI 606020
Date Extracted:	06/08/16	Lab ID:	06-1153 mb 1/5
Date Analyzed:	06/09/16	Data File:	060829.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	85	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 06/13/16
Date Received: 06/02/16
Project: SOU_0811-005-01_ 20160602, F&BI 606020

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

Laboratory Code: 606071-02 (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	11,000	75 b	109 b	63-146	37 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	105	79-144

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/13/16
Date Received: 06/02/16
Project: SOU_0811-005-01_ 20160602, F&BI 606020

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

Laboratory Code: 606059-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	17	16	10-142	6
Chloromethane	mg/kg (ppm)	2.5	<0.5	48	48	10-126	0
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	50	47	10-138	6
Bromomethane	mg/kg (ppm)	2.5	<0.5	68	65	10-163	5
Chloroethane	mg/kg (ppm)	2.5	<0.5	71	69	10-176	3
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	48	48	10-176	0
Acetone	mg/kg (ppm)	12.5	<0.5	81	78	10-163	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	63	62	10-160	2
Hexane	mg/kg (ppm)	2.5	<0.25	43	45	10-137	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	102	101	10-156	1
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	89	86	21-145	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	74	14-137	4
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	83	80	19-140	4
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	65	63	10-158	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	88	84	25-135	5
Chloroform	mg/kg (ppm)	2.5	<0.05	83	82	21-145	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	94	88	19-147	7
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	82	78	12-160	5
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	79	77	10-156	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	81	80	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	77	76	9-164	1
Benzene	mg/kg (ppm)	2.5	<0.03	86	83	29-129	4
Trichloroethene	mg/kg (ppm)	2.5	<0.02	88	86	21-139	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	94	89	30-135	5
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	90	87	23-155	3
Dibromomethane	mg/kg (ppm)	2.5	<0.05	89	87	23-145	2
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	99	94	24-155	5
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	94	91	28-144	3
Toluene	mg/kg (ppm)	2.5	<0.05	79	77	35-130	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	81	78	26-149	4
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	88	86	10-205	2
2-Hexanone	mg/kg (ppm)	12.5	<0.5	94	91	15-166	3
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	85	83	31-137	2
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	77	75	20-133	3
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	87	85	28-150	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	85	82	28-142	4
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	79	78	32-129	1
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	82	79	32-137	4
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	78	76	31-143	3
m,p-Xylene	mg/kg (ppm)	5	<0.1	80	79	34-136	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	80	77	33-134	4
Styrene	mg/kg (ppm)	2.5	<0.05	83	81	35-137	2
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	82	80	31-142	2
Bromoform	mg/kg (ppm)	2.5	<0.05	82	79	21-156	4
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	84	81	23-146	4
Bromobenzene	mg/kg (ppm)	2.5	<0.05	82	79	34-130	4
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	82	80	18-149	2
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	85	81	28-140	5
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	83	81	25-144	2
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	81	78	31-134	4
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	82	80	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	84	82	30-137	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	82	79	10-182	4
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	85	82	23-145	4
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	82	80	21-149	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	80	77	30-131	4
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	79	77	29-129	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	81	77	31-132	5
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	80	75	11-161	6
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	80	77	22-142	4
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	77	76	10-142	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	82	80	14-157	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	81	79	20-144	2

Date of Report: 06/13/16
Date Received: 06/02/16
Project: SOU_0811-005-01_ 20160602, F&BI 606020

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	52	10-146
Chloromethane	mg/kg (ppm)	2.5	78	27-133
Vinyl chloride	mg/kg (ppm)	2.5	87	22-139
Bromomethane	mg/kg (ppm)	2.5	97	38-114
Chloroethane	mg/kg (ppm)	2.5	106	10-163
Trichlorofluoromethane	mg/kg (ppm)	2.5	88	10-196
Acetone	mg/kg (ppm)	12.5	102	52-141
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
Hexane	mg/kg (ppm)	2.5	95	43-142
Methylene chloride	mg/kg (ppm)	2.5	121	42-132
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	108	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	104	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	106	68-115
2,2-Dichloropropane	mg/kg (ppm)	2.5	88	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	111	72-113
Chloroform	mg/kg (ppm)	2.5	103	66-120
2-Butanone (MEK)	mg/kg (ppm)	12.5	108	57-123
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	101	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	102	62-131
1,1-Dichloropropene	mg/kg (ppm)	2.5	107	69-128
Carbon tetrachloride	mg/kg (ppm)	2.5	100	60-139
Benzene	mg/kg (ppm)	2.5	108	68-114
Trichloroethene	mg/kg (ppm)	2.5	109	64-117
1,2-Dichloropropane	mg/kg (ppm)	2.5	112	72-127
Bromodichloromethane	mg/kg (ppm)	2.5	109	72-130
Dibromomethane	mg/kg (ppm)	2.5	109	70-120
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	113	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	112	75-136
Toluene	mg/kg (ppm)	2.5	98	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	99	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	104	75-113
2-Hexanone	mg/kg (ppm)	12.5	111	33-152
1,3-Dichloropropane	mg/kg (ppm)	2.5	100	72-130
Tetrachloroethene	mg/kg (ppm)	2.5	98	72-114
Dibromochloromethane	mg/kg (ppm)	2.5	106	74-125
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	104	74-132
Chlorobenzene	mg/kg (ppm)	2.5	97	76-111
Ethylbenzene	mg/kg (ppm)	2.5	100	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	94	69-135
m,p-Xylene	mg/kg (ppm)	5	99	78-122
o-Xylene	mg/kg (ppm)	2.5	98	77-124
Styrene	mg/kg (ppm)	2.5	102	74-126
Isopropylbenzene	mg/kg (ppm)	2.5	100	76-127
Bromoform	mg/kg (ppm)	2.5	99	56-132
n-Propylbenzene	mg/kg (ppm)	2.5	103	74-124
Bromobenzene	mg/kg (ppm)	2.5	99	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	101	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	101	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	99	61-137
2-Chlorotoluene	mg/kg (ppm)	2.5	98	74-121
4-Chlorotoluene	mg/kg (ppm)	2.5	101	75-122
tert-Butylbenzene	mg/kg (ppm)	2.5	102	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	101	76-125
sec-Butylbenzene	mg/kg (ppm)	2.5	103	71-130
p-Isopropyltoluene	mg/kg (ppm)	2.5	100	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	98	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	96	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	98	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	95	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	64-135
Hexachlorobutadiene	mg/kg (ppm)	2.5	90	50-153
Naphthalene	mg/kg (ppm)	2.5	101	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	99	63-138

Date of Report: 06/13/16
Date Received: 06/02/16
Project: SOU_0811-005-01_ 20160602, F&BI 606020

**QUALITY ASSURANCE RESULTS
FOR THE ANALYSIS OF SOIL SAMPLES FOR
POLYCHLORINATED BIPHENYLS AS
AROCLOR 1016/1260 BY EPA METHOD 8082A**

Laboratory Code: 606053-16 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	76	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	77	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	83	85	55-130	2
Aroclor 1260	mg/kg (ppm)	0.8	85	89	58-133	5

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The 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.

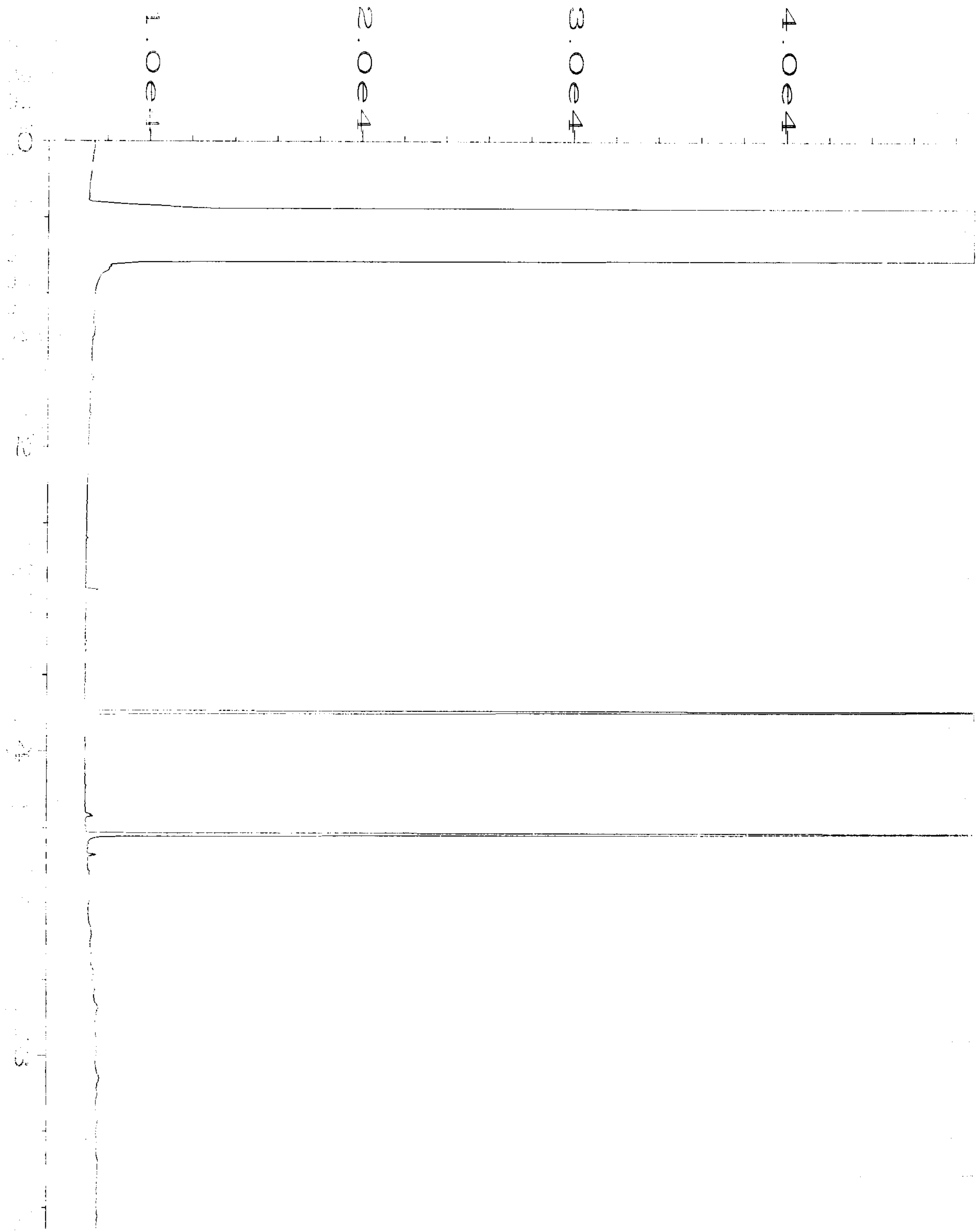
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

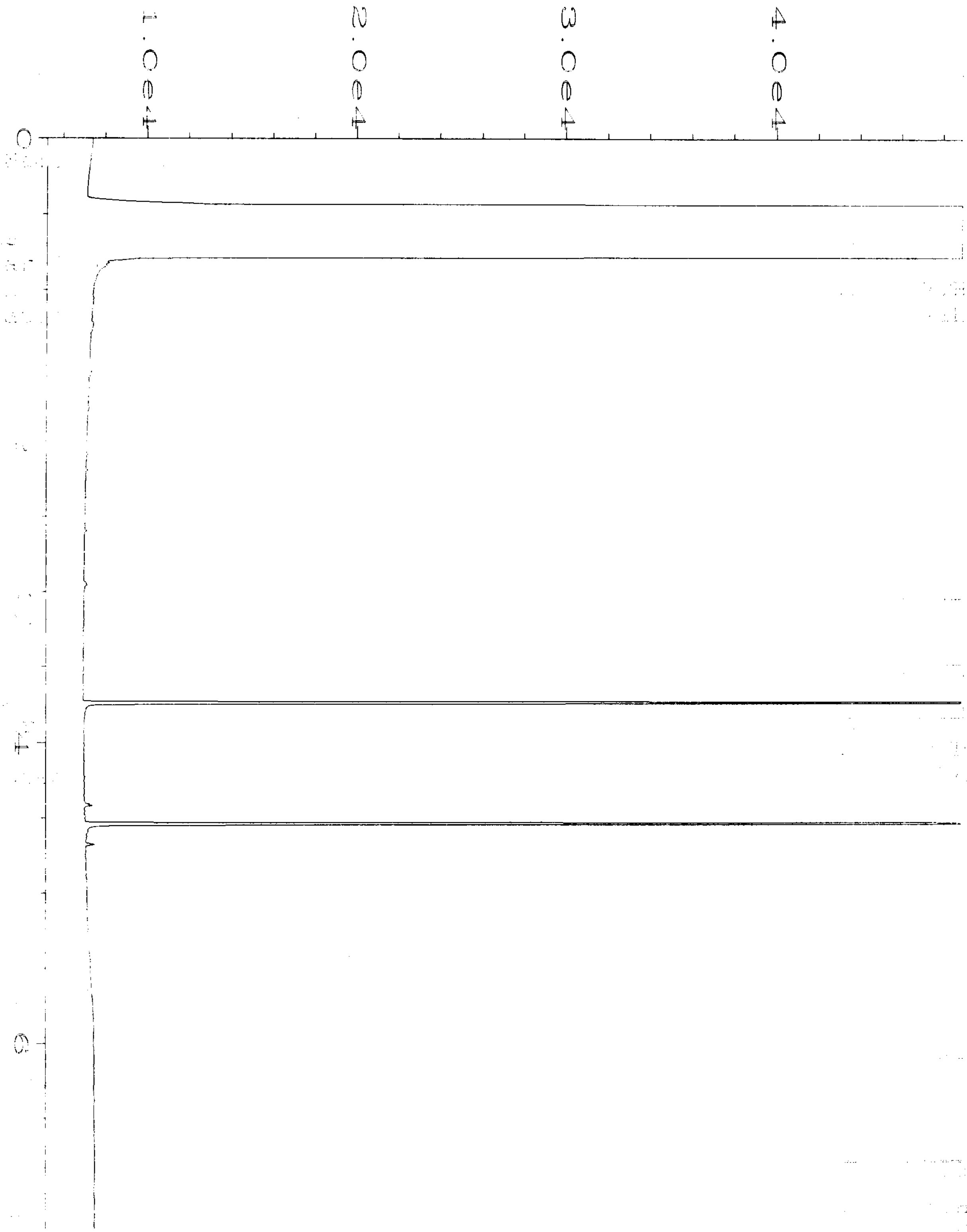
vo - The value reported fell outside the control limits established for this analyte.

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



Data File Name : C:\HPCHEM\1\DATA\06-06-16\036F0501.D
Operator : mwdl
Instrument : GC1
Sample Name : 606020-01
Run Time Bar Code:
Acquired on : 06 Jun 16 02:32 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 36
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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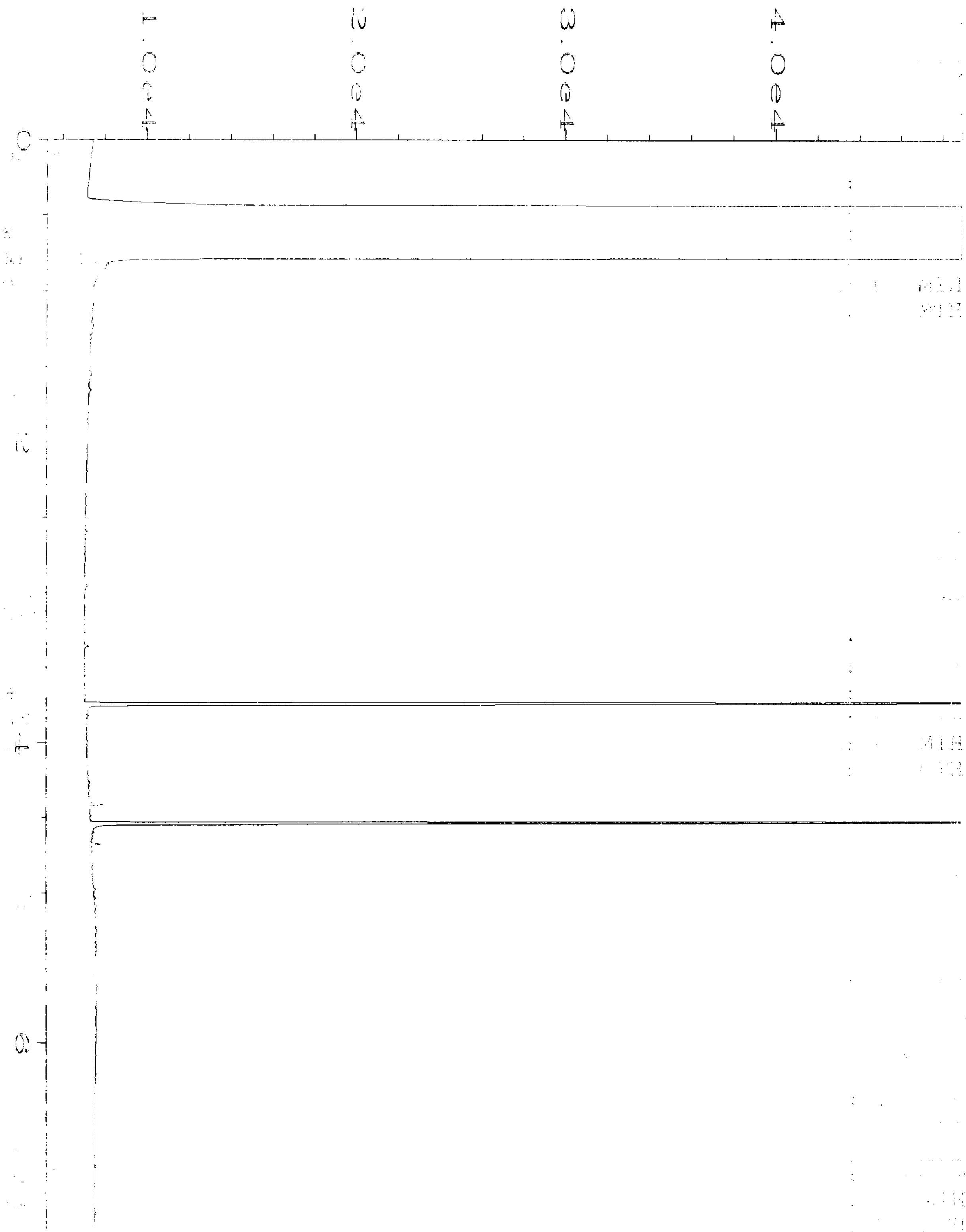
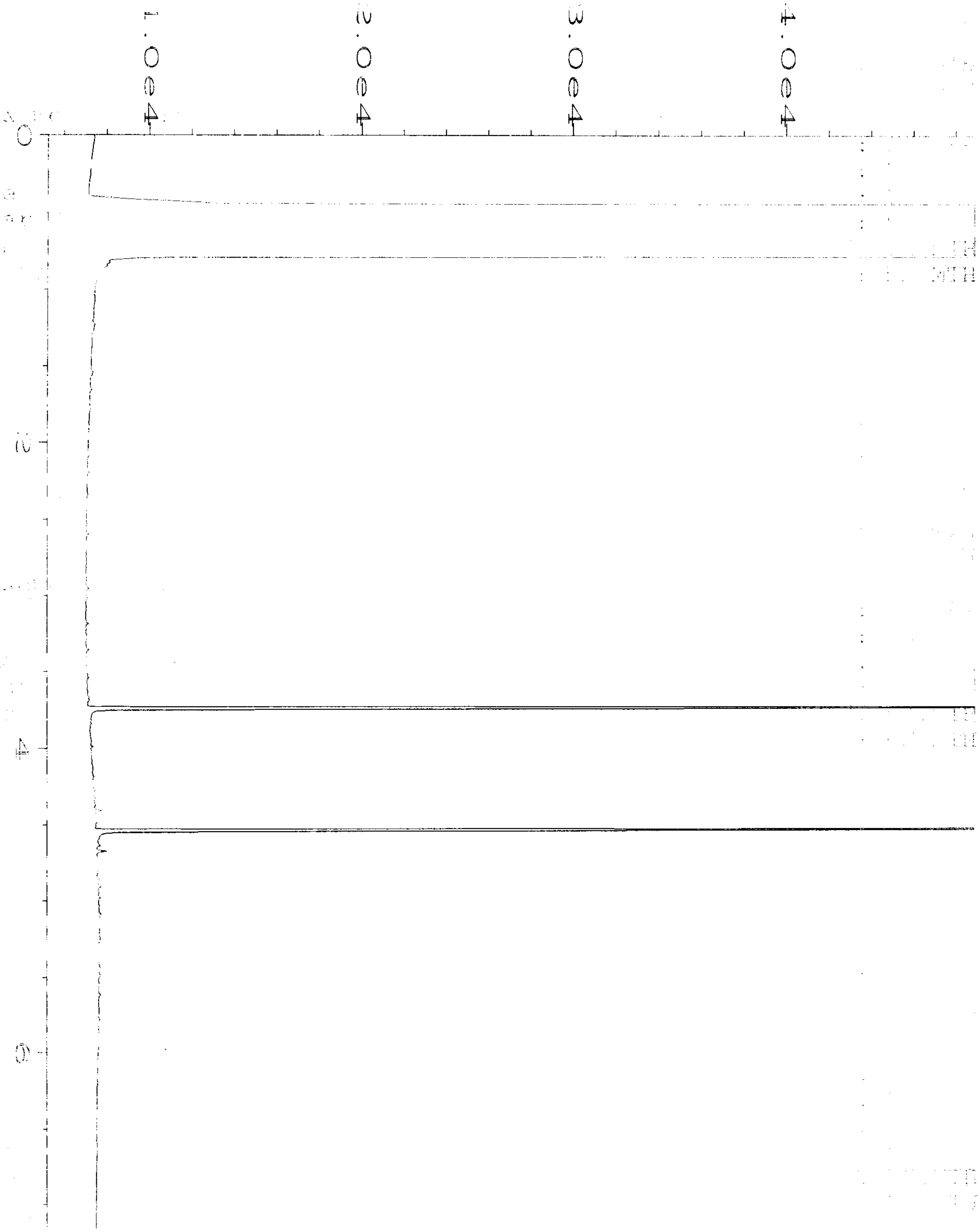
Operator   : mwdl
Instrument   : GC1
Sample Name   : 606020-03
Run Time Bar Code:
Acquired on   : 06 Jun 16   02:43 PM
Report Created on: 07 Jun 16   10:46 AM

Page Number   : 1
Vial Number   : 37
Injection Number : 1
Sequence Line   : 5
Instrument Method: DX.MTH
Analysis Method   : DX.MTH

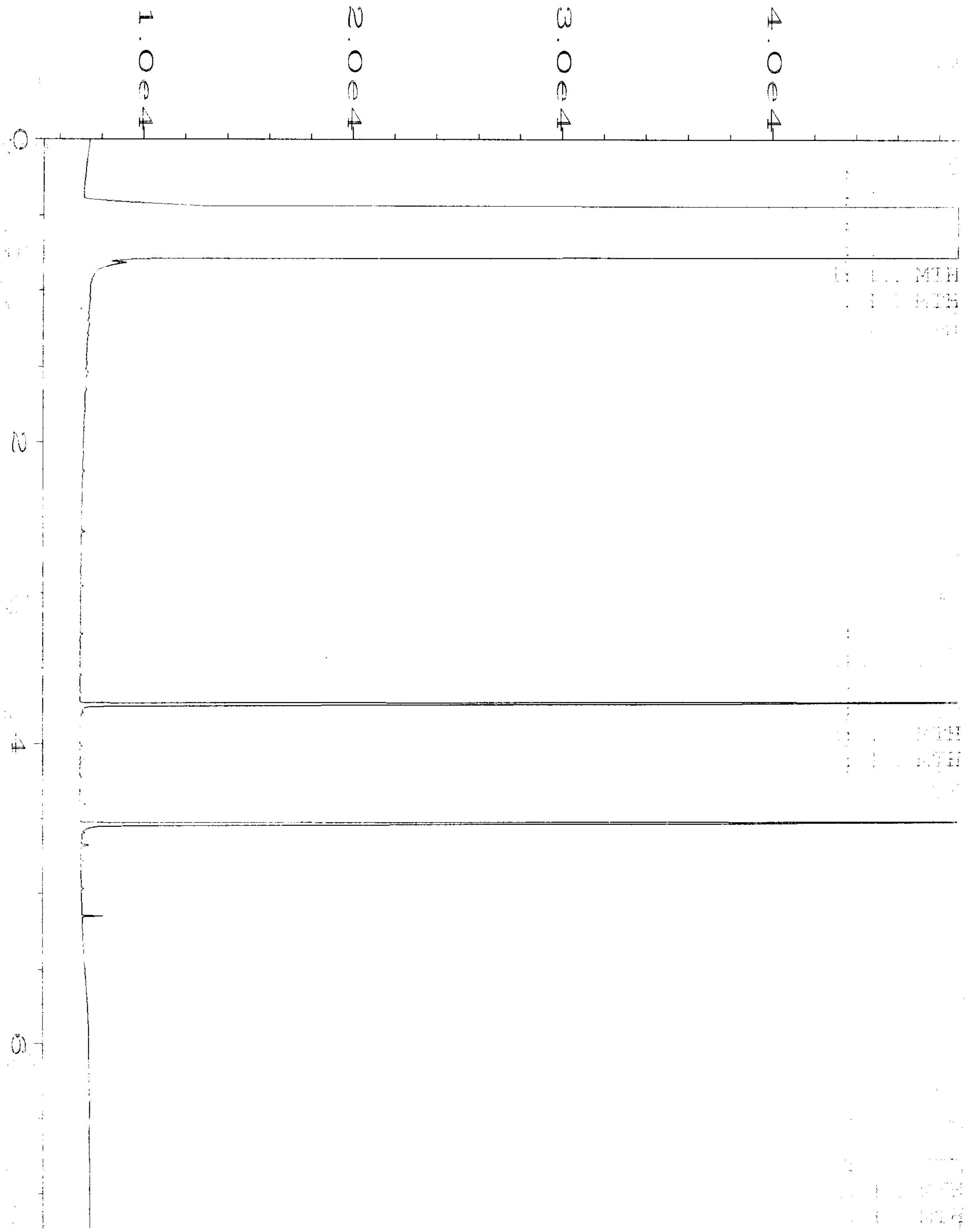


Data File Name	: C:\HPCHEM\1\DATA\06-06-16\038F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 38
Sample Name	: 606020-05	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 06 Jun 16 02:55 PM	Instrument Method	: DX.MTH
Report Created on:	07 Jun 16 10:46 AM	Analysis Method	: DX.MTH

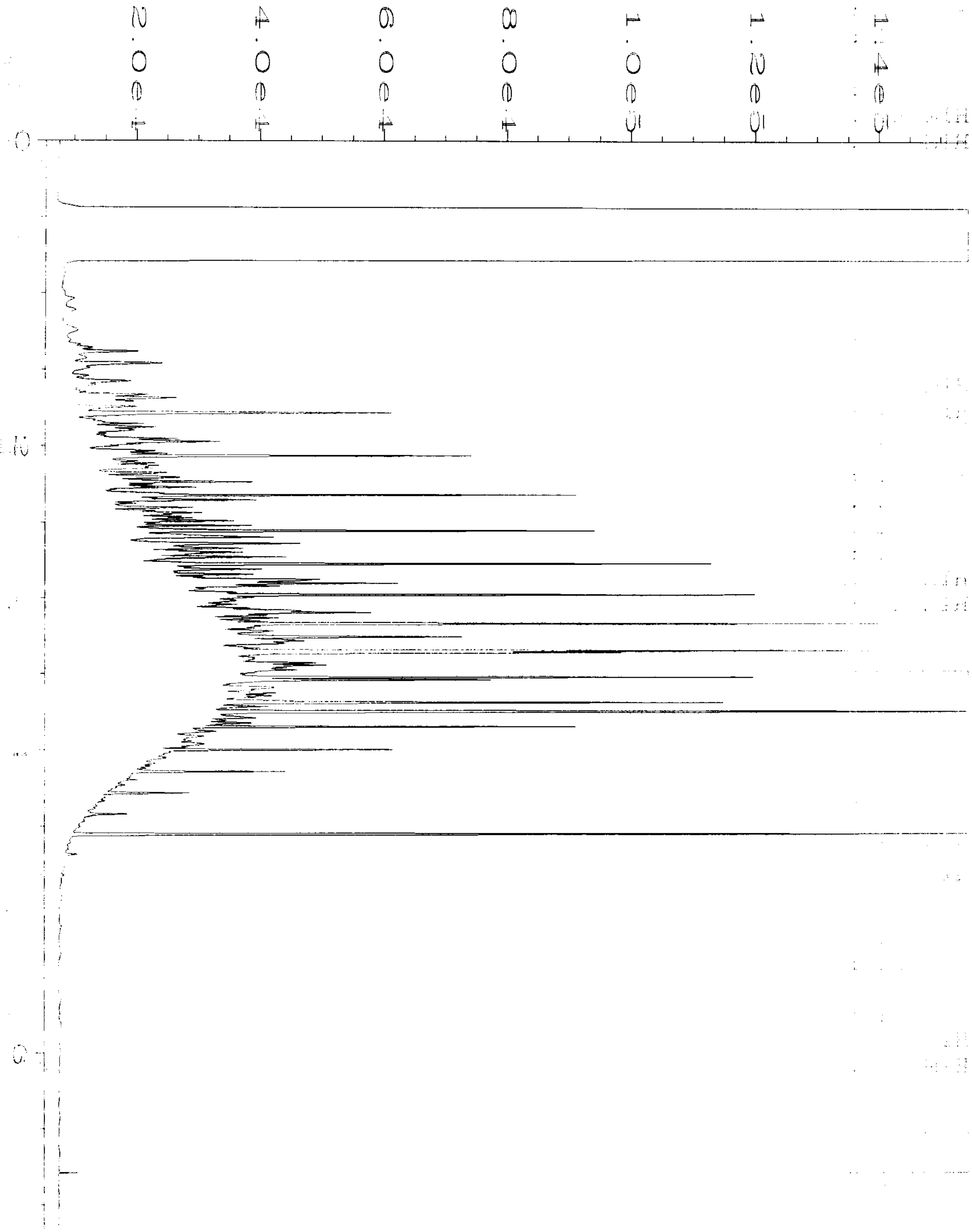


Data File Name : C:\HPCHEM\1\DATA\06-06-16\039F0501.D
Operator : mwdl
Instrument : GC1
Sample Name : 606020-06
Run Time Bar Code:
Acquired on : 06 Jun 16 03:06 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 39
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-06-16\025F0301.D				
Operator	: mwdl		Page Number	:	1
Instrument	: GC1		Vial Number	:	25
Sample Name	: 06-1148 mb		Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	3
Acquired on	: 06 Jun 16	12:06 PM	Instrument Method:		DX.MTH
Report Created on:	07 Jun 16	10:47 AM	Analysis Method	:	DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-06-16\003F0201.D				
Operator	: mwdl		Page Number	:	1
Instrument	: GC1		Vial Number	:	3
Sample Name	: 500 Dx 45-182D		Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	2
Acquired on	: 06 Jun 16	06:35 AM	Instrument Method:		DX.MTH
Report Created on:	07 Jun 16	10:47 AM	Analysis Method	:	DX.MTH

606020

SAMPLE CHAIN OF CUSTODY

ME 06/02/16 VS3/E03

Page # 1 of 2

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005-01

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	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	CVOCs by 8260B	MTCA 5 Metals by EPA 200.8	PCBs by EPA 8082	X-per RR 6/3/16 ms. Notes Hold
B06-4.0	B06	4.0	01 E	6/1/16	0933	Soil	5	X								
B06-8.0	B06	8.0	02		1000											
B07-3.0	B07	3.0	03		1035			X							X	
B07-6.0	B07	6.0	04		1105											
B08-4.0	B08	4.0	05		1305			X								
B08-6.0	B08	6.0	06		1330			X			X					
B09-3.0	B09	3.0	07		1345											
B09-6.0	B09	6.0	08		1410						X					
B10-3.0	B10	3.0	09		1445											
B10-6.0	B10	6.0	10		1510						X					

Samples received at 2 °C

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	SoundEarth	6/2/16	0725
Received by:	Michael Erdahl	F&BInc	6/2/16	0725
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

606020

SAMPLE CHAIN OF CUSTODY ME 06/02/16

VS3/E03

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO. 18th and Jackson Property

PO # 0811-005-01

REMARKS

Page # 2 of 2

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

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	CVOCs by 8260B	MTCA 5 Metals by EPA 200.8	PCBs by EPA 8082	Notes
B11-2.5	B11	2.5	11 A-E	6/1/16	1555	Soil	5									HOLD
B14-3.0	B14	3.0	12		1755											
B14-5.5	B14	5.5	13		1810											
B17-2.0	B17	2.0	14		1935											
B17-4.0	B17	4.0	15		1940						X					

Clare Toch 6/1/16

received at 2 °C

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

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Toch	Clare Tochilin	SoundEarth	6/2/16	0725
Received by: [signature]	Michael Erdahl	FG Bruya	6/2/16	0725
Relinquished by:				
Received by:				

Friedman & Bruya, Inc. #606053

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 14, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr. Roberts:

Included are the results from the testing of material submitted on June 3, 2016 from the SOU_ 0811-005-01_ 20160603, F&BI 606053 project. There are 24 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
c: Clare Tochilin
SOU0614R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 3, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_ 0811-005-01_ 20160603, F&BI 606053 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
606053 -01	B16-4.0
606053 -02	B16-7.5
606053 -03	B16-20.0
606053 -04	B15-4.0
606053 -05	B15-8.0
606053 -06	B13-4.0
606053 -07	B13-8.0
606053 -08	B13-12.0
606053 -09	B11-5.0
606053 -10	B12-4.0
606053 -11	B12-8.0
606053 -12	B12-11.5
606053 -13	B05-4.0
606053 -14	B05-8.0
606053 -15	B05-10.5
606053 -16	B04-4.0
606053 -17	B04-8.0
606053 -18	B04-12.0
606053 -19	B03-4.0
606053 -20	B03-8.0
606053 -21	B03-12.0
606053 -22	B01-4.0
606053 -23	B01-8.0
606053 -24	B02-4.0
606053 -25	B02-8.0

A 200.8 internal standard failed the acceptance criteria for samples B13-4.0, B12-4.0, B03-4.0 and B02-4.0 due to matrix interferences. The data were flagged accordingly. The sample was diluted and reanalyzed.

All other quality control requirements were acceptable.

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted: 06/03/16
Date Analyzed: 06/03/16

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)
B03-4.0 606053-19	<0.02	<0.02	<0.02	<0.06	<2	79
B03-8.0 606053-20	<0.02	<0.02	<0.02	<0.06	<2	80
Method Blank 06-1124 MB	<0.02	<0.02	<0.02	<0.06	<2	79

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted: 06/06/16
Date Analyzed: 06/06/16

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 56-165)
B16-4.0 606053-01	<50	<250	89
B13-4.0 606053-06	<50	<250	90
B05-4.0 606053-13	<50	<250	92
B05-10.5 606053-15	<50	<250	92
B04-4.0 606053-16	<50	<250	99
B04-8.0 606053-17	<50	<250	89
B03-4.0 606053-19	<50	<250	94
B01-4.0 606053-22	<50	<250	88
B02-4.0 606053-24	<50	<250	88
Method Blank 06-1148 MB	<50	<250	93

Analysis For Total Metals By EPA Method 200.8

Client ID:	B16-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-01
Date Analyzed:	06/10/16	Data File:	606053-01.074
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.32
Cadmium	<1
Chromium	11.4
Lead	1.63
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	B13-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-06
Date Analyzed:	06/10/16	Data File:	606053-06.075
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.24
Cadmium	<1
Chromium	11.5 J
Lead	1.43 J
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	B13-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-06 x2
Date Analyzed:	06/13/16	Data File:	606053-06 x2.037
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Cadmium	<2
Chromium	12.7
Lead	<2
Mercury	<2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	B12-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-10
Date Analyzed:	06/10/16	Data File:	606053-10.076
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.03
Cadmium	<1
Chromium	10.1 J
Lead	4.17 J
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	B12-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-10 x2
Date Analyzed:	06/13/16	Data File:	606053-10 x2.038
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Cadmium	<2
Chromium	11.2
Lead	4.72
Mercury	<2

Analysis For Total Metals By EPA Method 200.8

Client ID:	B03-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-19
Date Analyzed:	06/10/16	Data File:	606053-19.077
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	1.45
Cadmium	<1
Chromium	10.5 J
Lead	1.87 J
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	B03-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-19 x2
Date Analyzed:	06/13/16	Data File:	606053-19 x2.039
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Cadmium	<2
Chromium	11.6
Lead	2.20
Mercury	<2

Analysis For Total Metals By EPA Method 200.8

Client ID:	B02-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-24
Date Analyzed:	06/10/16	Data File:	606053-24.078
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.36
Cadmium	<1
Chromium	15.8 J
Lead	3.88 J
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	B02-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-24 x2
Date Analyzed:	06/13/16	Data File:	606053-24 x2.040
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<2
Cadmium	<2
Chromium	18.3
Lead	4.43
Mercury	<2

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	NA	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	I6-367 mb
Date Analyzed:	06/08/16	Data File:	I6-367 mb.028
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Cadmium	<1
Chromium	<5
Lead	<1
Mercury	<1

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	B04-12.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/03/16	Lab ID:	606053-18
Date Analyzed:	06/03/16	Data File:	060335.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	62	142
Toluene-d8	108	55	145
4-Bromofluorobenzene	106	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/03/16	Lab ID:	06-1089 mb
Date Analyzed:	06/03/16	Data File:	060327.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	62	142
Toluene-d8	107	55	145
4-Bromofluorobenzene	104	65	139

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.025
Vinyl chloride	<0.05	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<0.5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<0.5	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	B04-4.0	Client:	SoundEarth Strategies
Date Received:	06/03/16	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	606053-16 1/50
Date Analyzed:	06/09/16	Data File:	060831.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	85 d	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.2
Aroclor 1232	<0.2
Aroclor 1016	<0.2
Aroclor 1242	<0.2
Aroclor 1248	<0.2
Aroclor 1254	<0.2
Aroclor 1260	<0.2
Aroclor 1262	<0.2
Aroclor 1268	<0.2

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_ 0811-005-01_ 20160603, F&BI 606053
Date Extracted:	06/08/16	Lab ID:	06-1153 mb 1/5
Date Analyzed:	06/09/16	Data File:	060829.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MP

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
TCMX	85	29	154

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

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

Laboratory Code: 606031-09 (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	92	69-120
Toluene	mg/kg (ppm)	0.5	99	70-117
Ethylbenzene	mg/kg (ppm)	0.5	102	65-123
Xylenes	mg/kg (ppm)	1.5	101	66-120
Gasoline	mg/kg (ppm)	20	95	71-131

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

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

Laboratory Code: 606071-02 (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	11,000	75 b	109 b	63-146	37 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	105	79-144

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

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

Laboratory Code: 605458-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<10	105	113	70-130	7
Cadmium	mg/kg (ppm)	10	<10	102	107	70-130	5
Chromium	mg/kg (ppm)	50	416	0 b	165 b	70-130	200 b
Lead	mg/kg (ppm)	50	111	98 b	149 b	70-130	41 b
Mercury	mg/kg (ppm	10	<10	85	90	70-130	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	106	85-115
Cadmium	mg/kg (ppm)	10	104	85-115
Chromium	mg/kg (ppm)	50	107	85-115
Lead	mg/kg (ppm)	50	104	85-115
Mercury	mg/kg (ppm)	10	98	85-115

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

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

Laboratory Code: 606059-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2.5	<0.5	17	16	10-142	6
Chloromethane	mg/kg (ppm)	2.5	<0.5	48	48	10-126	0
Vinyl chloride	mg/kg (ppm)	2.5	<0.05	50	47	10-138	6
Bromomethane	mg/kg (ppm)	2.5	<0.5	68	65	10-163	5
Chloroethane	mg/kg (ppm)	2.5	<0.5	71	69	10-176	3
Trichlorofluoromethane	mg/kg (ppm)	2.5	<0.5	48	48	10-176	0
Acetone	mg/kg (ppm)	12.5	<0.5	81	78	10-163	4
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	63	62	10-160	2
Hexane	mg/kg (ppm)	2.5	<0.25	43	45	10-137	5
Methylene chloride	mg/kg (ppm)	2.5	<0.5	102	101	10-156	1
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	<0.05	89	86	21-145	3
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	77	74	14-137	4
1,1-Dichloroethane	mg/kg (ppm)	2.5	<0.05	83	80	19-140	4
2,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	65	63	10-158	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	<0.05	88	84	25-135	5
Chloroform	mg/kg (ppm)	2.5	<0.05	83	82	21-145	1
2-Butanone (MEK)	mg/kg (ppm)	12.5	<0.5	94	88	19-147	7
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	82	78	12-160	5
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	<0.05	79	77	10-156	3
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	81	80	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2.5	<0.05	77	76	9-164	1
Benzene	mg/kg (ppm)	2.5	<0.03	86	83	29-129	4
Trichloroethene	mg/kg (ppm)	2.5	<0.02	88	86	21-139	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	94	89	30-135	5
Bromodichloromethane	mg/kg (ppm)	2.5	<0.05	90	87	23-155	3
Dibromomethane	mg/kg (ppm)	2.5	<0.05	89	87	23-145	2
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	<0.5	99	94	24-155	5
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	94	91	28-144	3
Toluene	mg/kg (ppm)	2.5	<0.05	79	77	35-130	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	81	78	26-149	4
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	88	86	10-205	2
2-Hexanone	mg/kg (ppm)	12.5	<0.5	94	91	15-166	3
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	85	83	31-137	2
Tetrachloroethene	mg/kg (ppm)	2.5	<0.025	77	75	20-133	3
Dibromochloromethane	mg/kg (ppm)	2.5	<0.05	87	85	28-150	2
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	85	82	28-142	4
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	79	78	32-129	1
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	82	79	32-137	4
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	78	76	31-143	3
m,p-Xylene	mg/kg (ppm)	5	<0.1	80	79	34-136	1
o-Xylene	mg/kg (ppm)	2.5	<0.05	80	77	33-134	4
Styrene	mg/kg (ppm)	2.5	<0.05	83	81	35-137	2
Isopropylbenzene	mg/kg (ppm)	2.5	<0.05	82	80	31-142	2
Bromoform	mg/kg (ppm)	2.5	<0.05	82	79	21-156	4
n-Propylbenzene	mg/kg (ppm)	2.5	<0.05	84	81	23-146	4
Bromobenzene	mg/kg (ppm)	2.5	<0.05	82	79	34-130	4
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	82	80	18-149	2
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	85	81	28-140	5
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	83	81	25-144	2
2-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	81	78	31-134	4
4-Chlorotoluene	mg/kg (ppm)	2.5	<0.05	82	80	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2.5	<0.05	84	82	30-137	2
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	82	79	10-182	4
sec-Butylbenzene	mg/kg (ppm)	2.5	<0.05	85	82	23-145	4
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	82	80	21-149	2
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	80	77	30-131	4
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	79	77	29-129	3
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	<0.05	81	77	31-132	5
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.5	80	75	11-161	6
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	80	77	22-142	4
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.25	77	76	10-142	1
Naphthalene	mg/kg (ppm)	2.5	<0.05	82	80	14-157	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.25	81	79	20-144	2

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2.5	52	10-146
Chloromethane	mg/kg (ppm)	2.5	78	27-133
Vinyl chloride	mg/kg (ppm)	2.5	87	22-139
Bromomethane	mg/kg (ppm)	2.5	97	38-114
Chloroethane	mg/kg (ppm)	2.5	106	10-163
Trichlorofluoromethane	mg/kg (ppm)	2.5	88	10-196
Acetone	mg/kg (ppm)	12.5	102	52-141
1,1-Dichloroethene	mg/kg (ppm)	2.5	95	47-128
Hexane	mg/kg (ppm)	2.5	95	43-142
Methylene chloride	mg/kg (ppm)	2.5	121	42-132
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2.5	108	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2.5	104	67-127
1,1-Dichloroethane	mg/kg (ppm)	2.5	106	68-115
2,2-Dichloropropane	mg/kg (ppm)	2.5	88	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2.5	111	72-113
Chloroform	mg/kg (ppm)	2.5	103	66-120
2-Butanone (MEK)	mg/kg (ppm)	12.5	108	57-123
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	101	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2.5	102	62-131
1,1-Dichloropropene	mg/kg (ppm)	2.5	107	69-128
Carbon tetrachloride	mg/kg (ppm)	2.5	100	60-139
Benzene	mg/kg (ppm)	2.5	108	68-114
Trichloroethene	mg/kg (ppm)	2.5	109	64-117
1,2-Dichloropropane	mg/kg (ppm)	2.5	112	72-127
Bromodichloromethane	mg/kg (ppm)	2.5	109	72-130
Dibromomethane	mg/kg (ppm)	2.5	109	70-120
4-Methyl-2-pentanone	mg/kg (ppm)	12.5	113	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	112	75-136
Toluene	mg/kg (ppm)	2.5	98	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	99	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	104	75-113
2-Hexanone	mg/kg (ppm)	12.5	111	33-152
1,3-Dichloropropane	mg/kg (ppm)	2.5	100	72-130
Tetrachloroethene	mg/kg (ppm)	2.5	98	72-114
Dibromochloromethane	mg/kg (ppm)	2.5	106	74-125
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	104	74-132
Chlorobenzene	mg/kg (ppm)	2.5	97	76-111
Ethylbenzene	mg/kg (ppm)	2.5	100	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	94	69-135
m,p-Xylene	mg/kg (ppm)	5	99	78-122
o-Xylene	mg/kg (ppm)	2.5	98	77-124
Styrene	mg/kg (ppm)	2.5	102	74-126
Isopropylbenzene	mg/kg (ppm)	2.5	100	76-127
Bromoform	mg/kg (ppm)	2.5	99	56-132
n-Propylbenzene	mg/kg (ppm)	2.5	103	74-124
Bromobenzene	mg/kg (ppm)	2.5	99	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	101	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	101	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	99	61-137
2-Chlorotoluene	mg/kg (ppm)	2.5	98	74-121
4-Chlorotoluene	mg/kg (ppm)	2.5	101	75-122
tert-Butylbenzene	mg/kg (ppm)	2.5	102	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	101	76-125
sec-Butylbenzene	mg/kg (ppm)	2.5	103	71-130
p-Isopropyltoluene	mg/kg (ppm)	2.5	100	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2.5	98	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2.5	96	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2.5	98	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	95	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	96	64-135
Hexachlorobutadiene	mg/kg (ppm)	2.5	90	50-153
Naphthalene	mg/kg (ppm)	2.5	101	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	99	63-138

Date of Report: 06/14/16
Date Received: 06/03/16
Project: SOU_ 0811-005-01_ 20160603, F&BI 606053

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 606053-16 1/50 (Matrix Spike) 1/50

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Control Limits
Aroclor 1016	mg/kg (ppm)	0.8	<0.2	76	50-150
Aroclor 1260	mg/kg (ppm)	0.8	<0.2	77	50-150

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.8	83	85	55-130	2
Aroclor 1260	mg/kg (ppm)	0.8	85	89	58-133	5

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The 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.

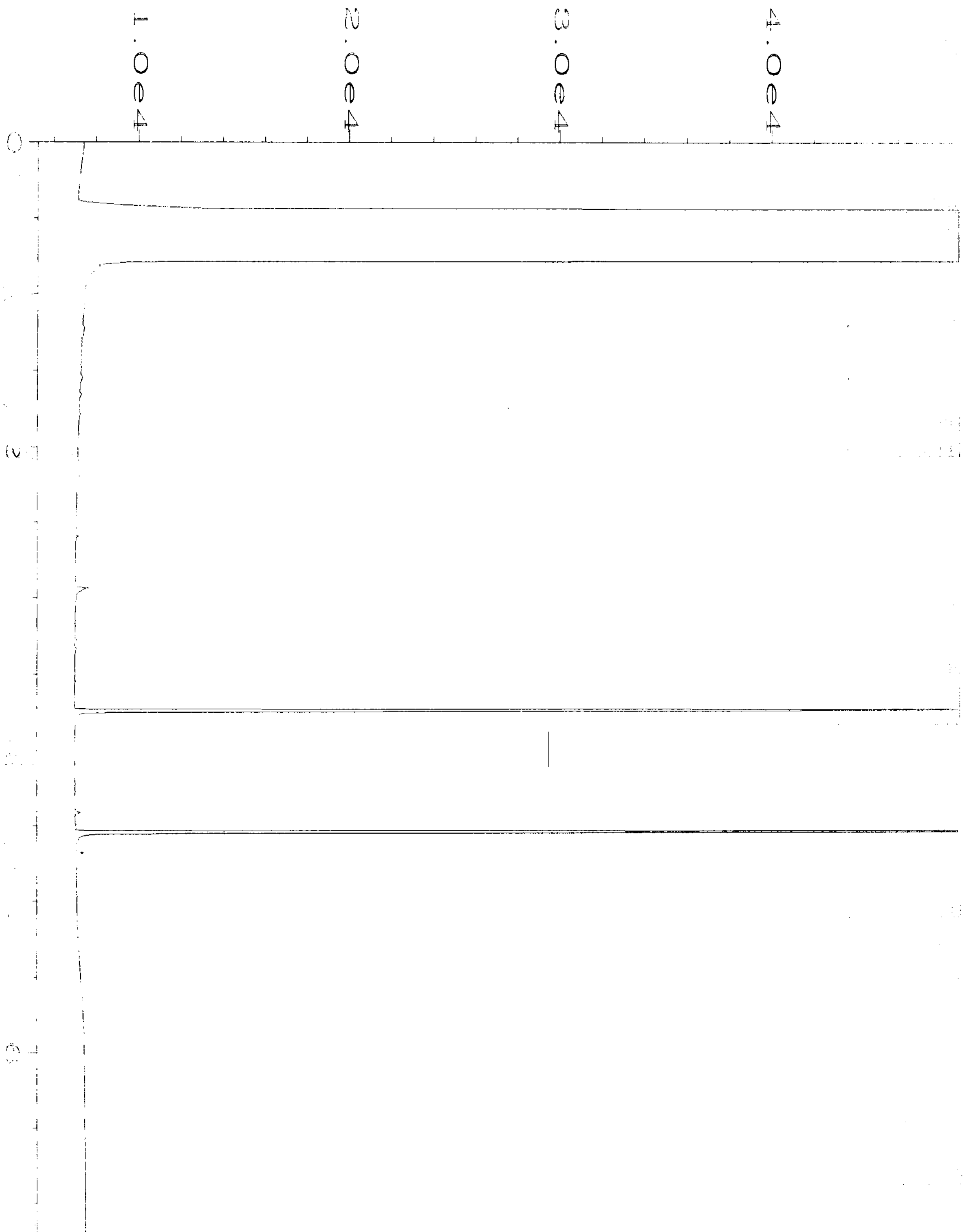
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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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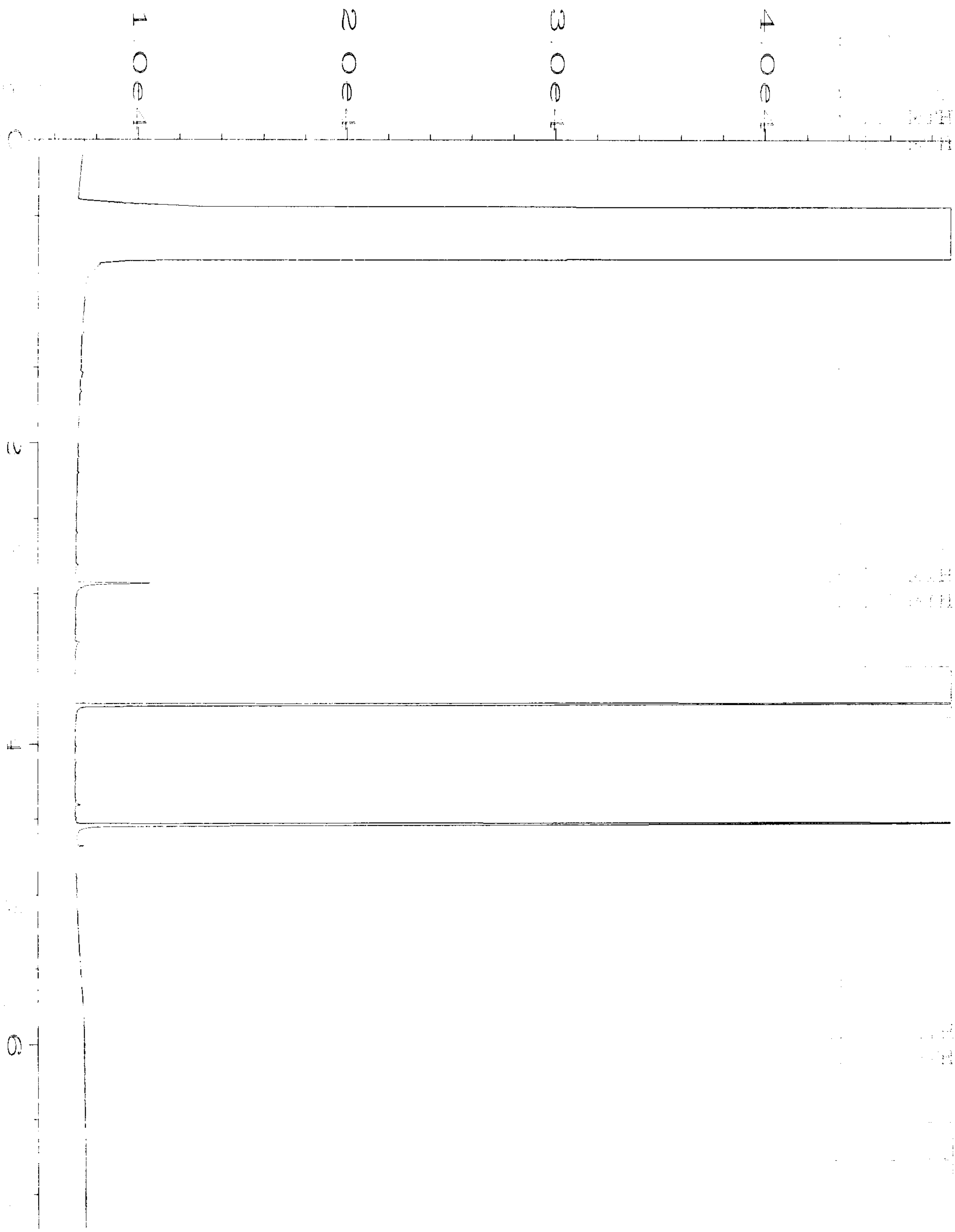
Operator : mwdl
Instrument : GC1
Sample Name : 606053-01
Run Time Bar Code:
Acquired on : 06 Jun 16 03:17 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 40
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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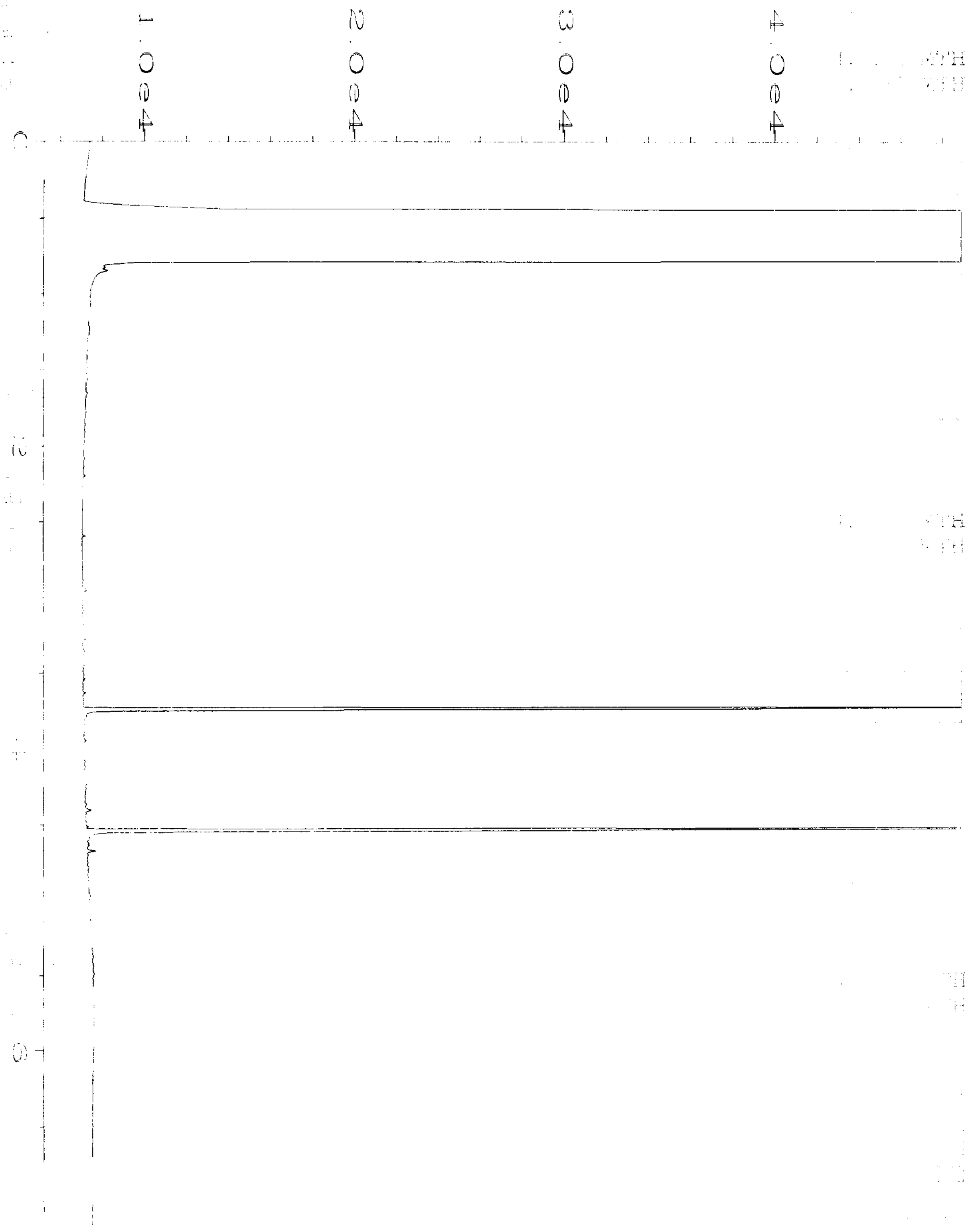
Operator : mwdl
Instrument : GC1
Sample Name : 606053-06
Run Time Bar Code:
Acquired on : 06 Jun 16 03:28 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 41
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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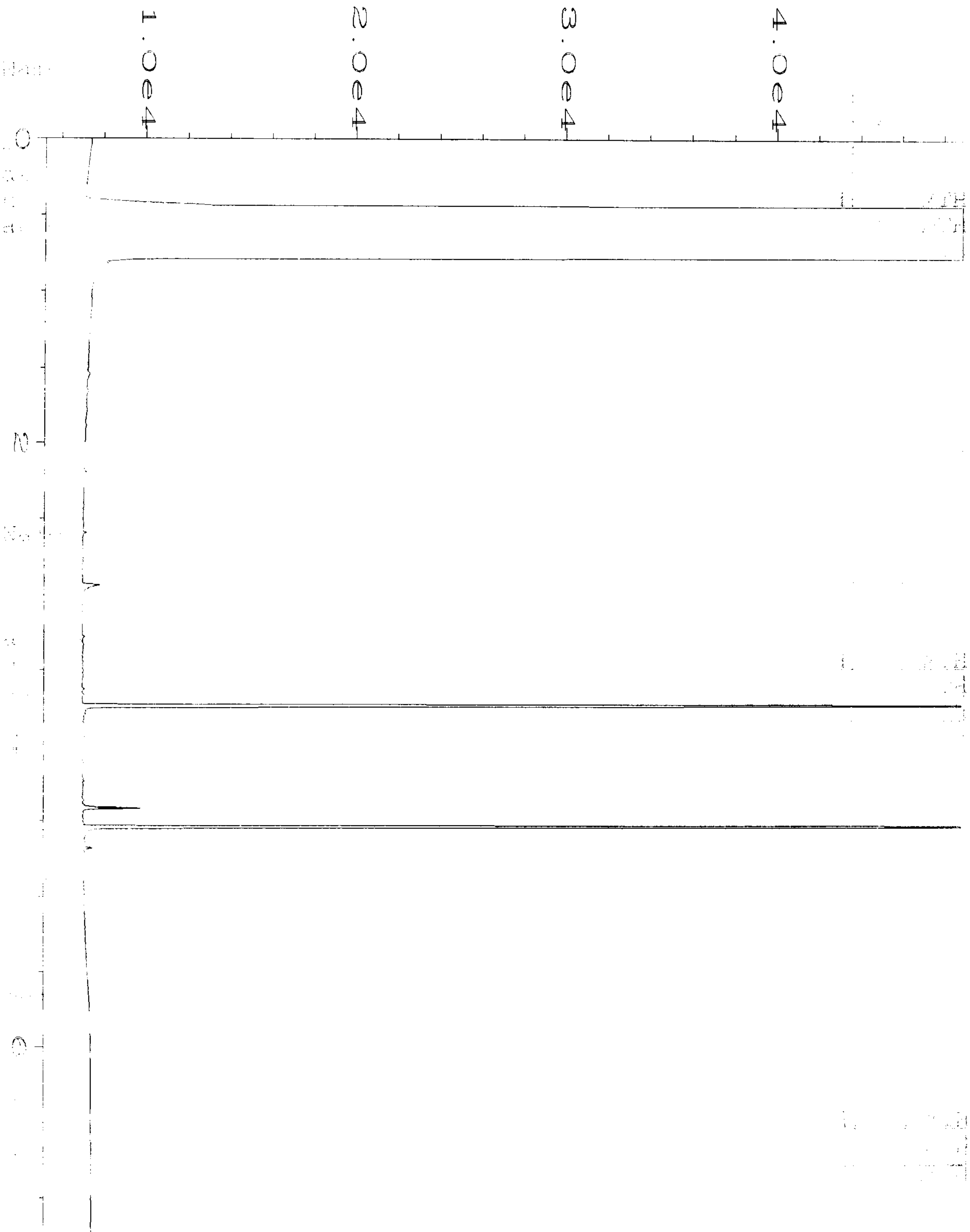
Operator : mwdl
Instrument : GC1
Sample Name : 606053-13
Run Time Bar Code:
Acquired on : 06 Jun 16 03:40 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 42
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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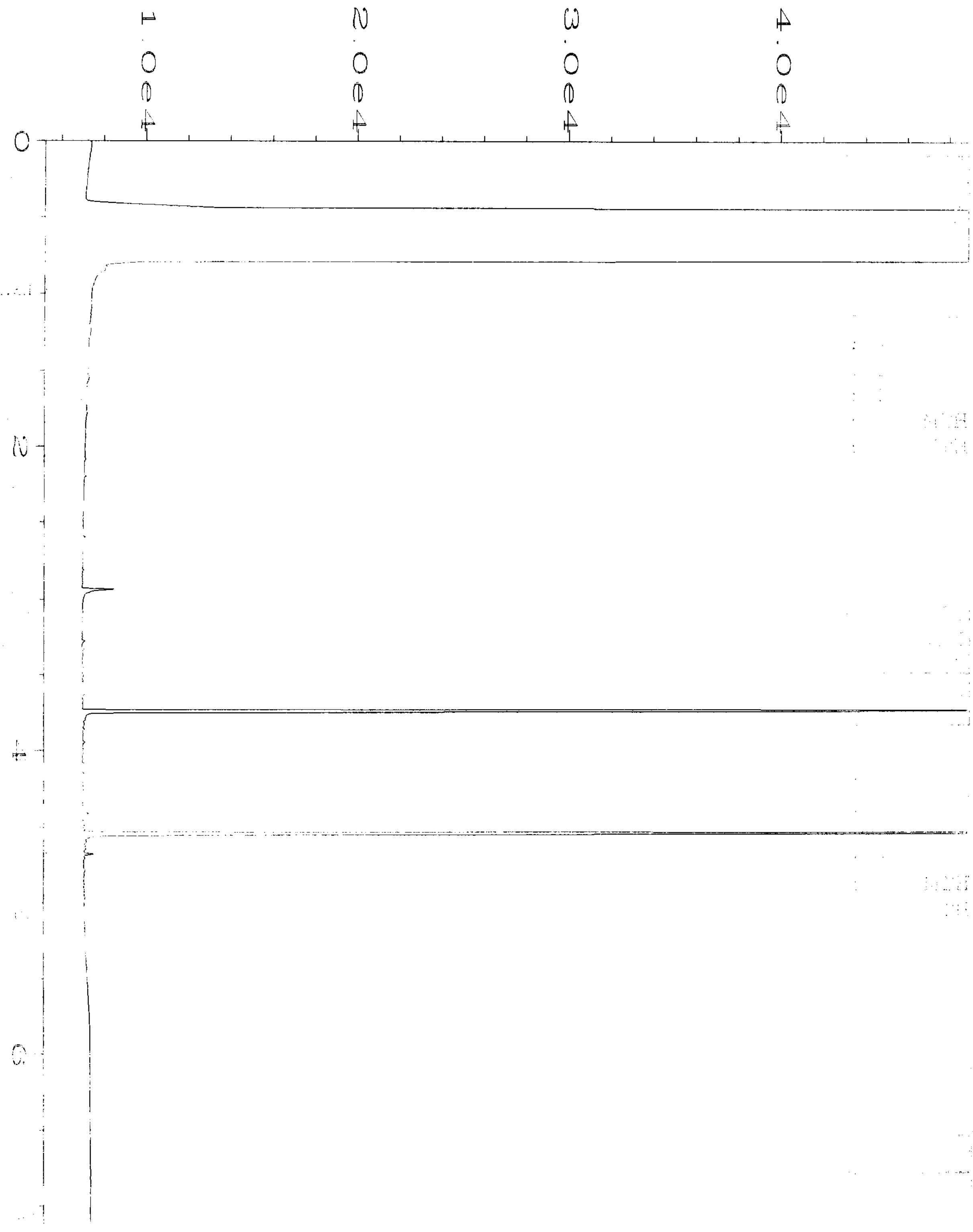
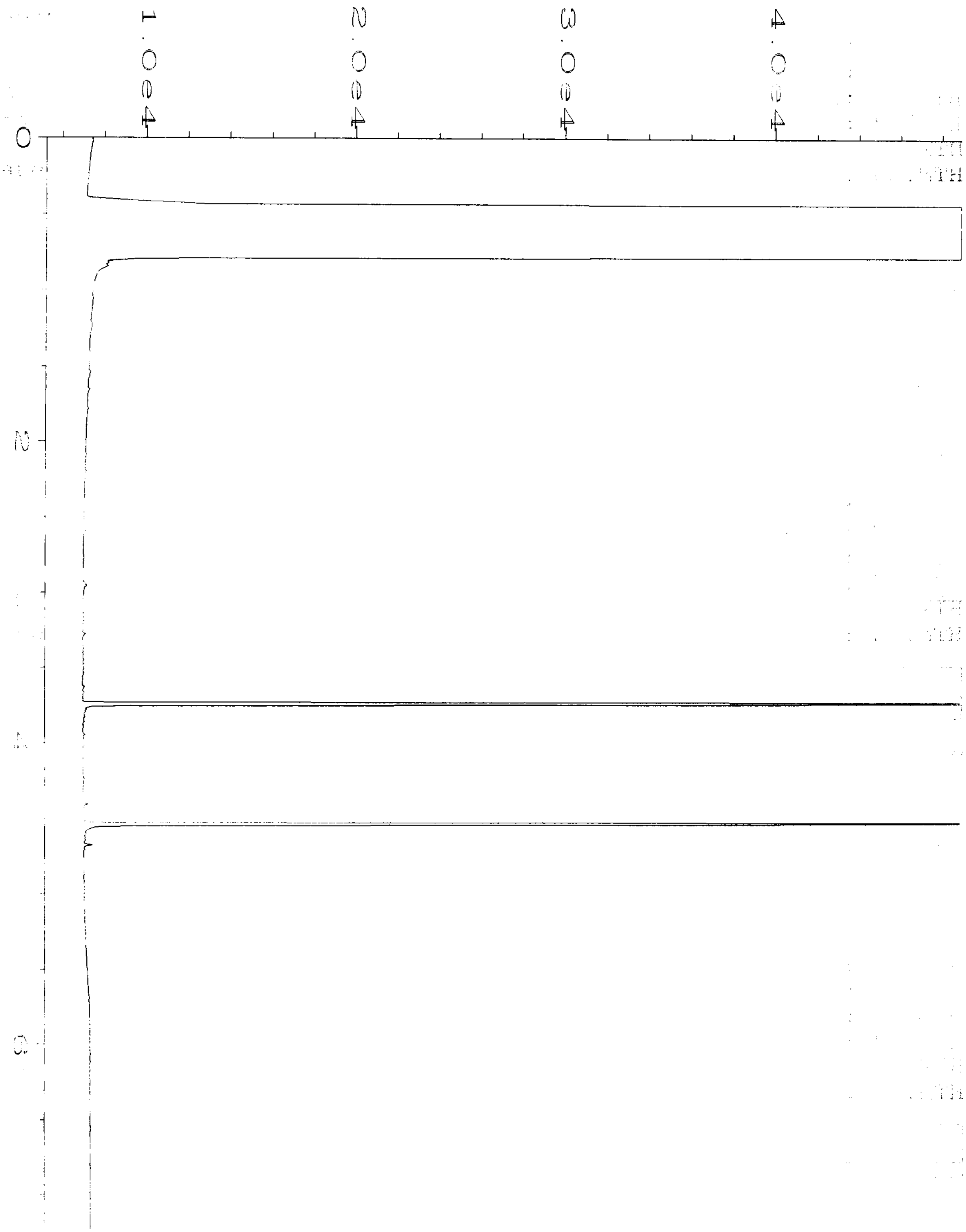
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 43
Sample Name	: 606053-15	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 06 Jun 16 03:51 PM	Instrument Method:	DX.MTH
Report Created on:	07 Jun 16 10:46 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\06-06-16\044F0501.D
Operator : mwdl
Instrument : GC1
Sample Name : 606053-16
Run Time Bar Code:
Acquired on : 06 Jun 16 04:02 PM
Report Created on: 07 Jun 16 10:46 AM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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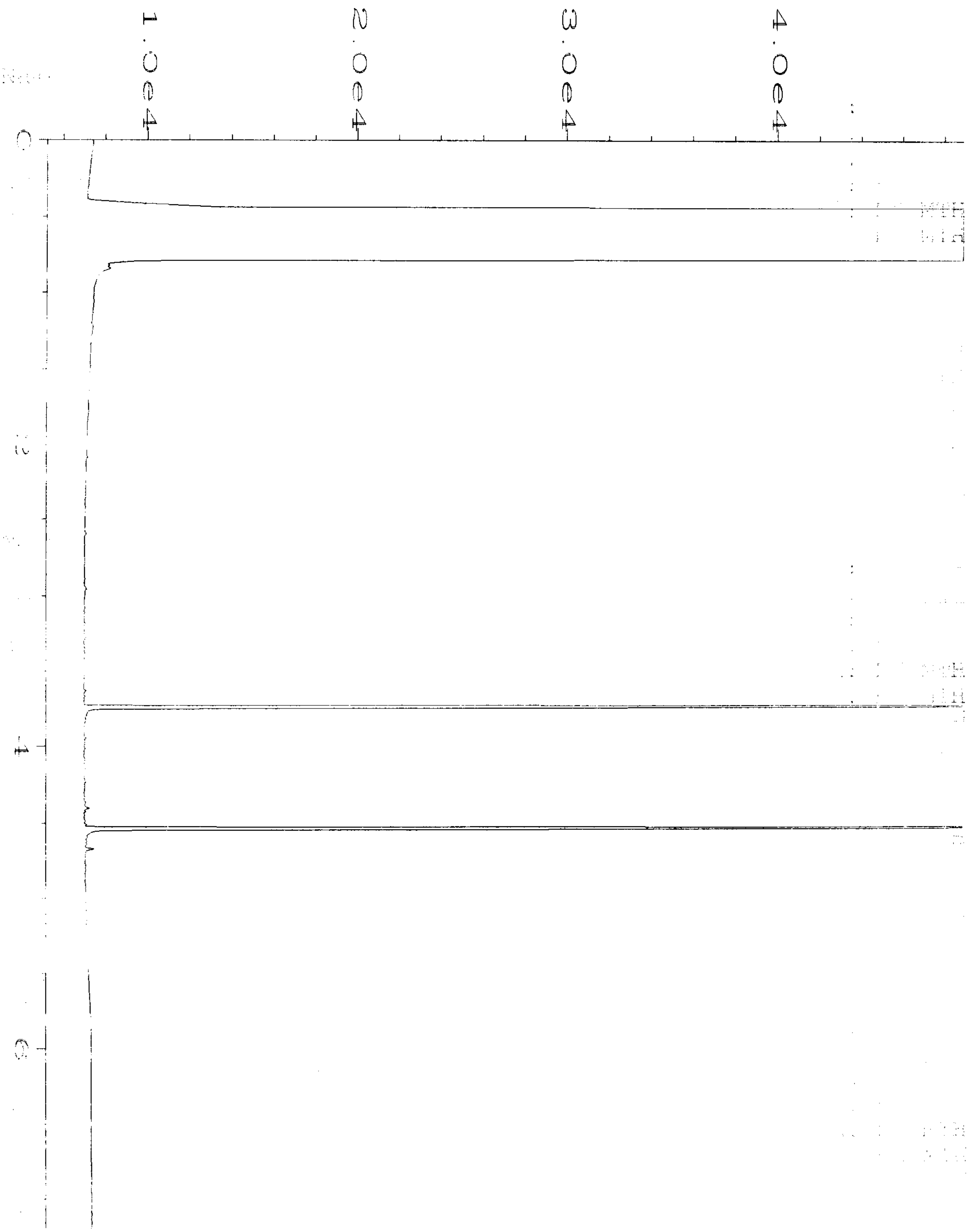
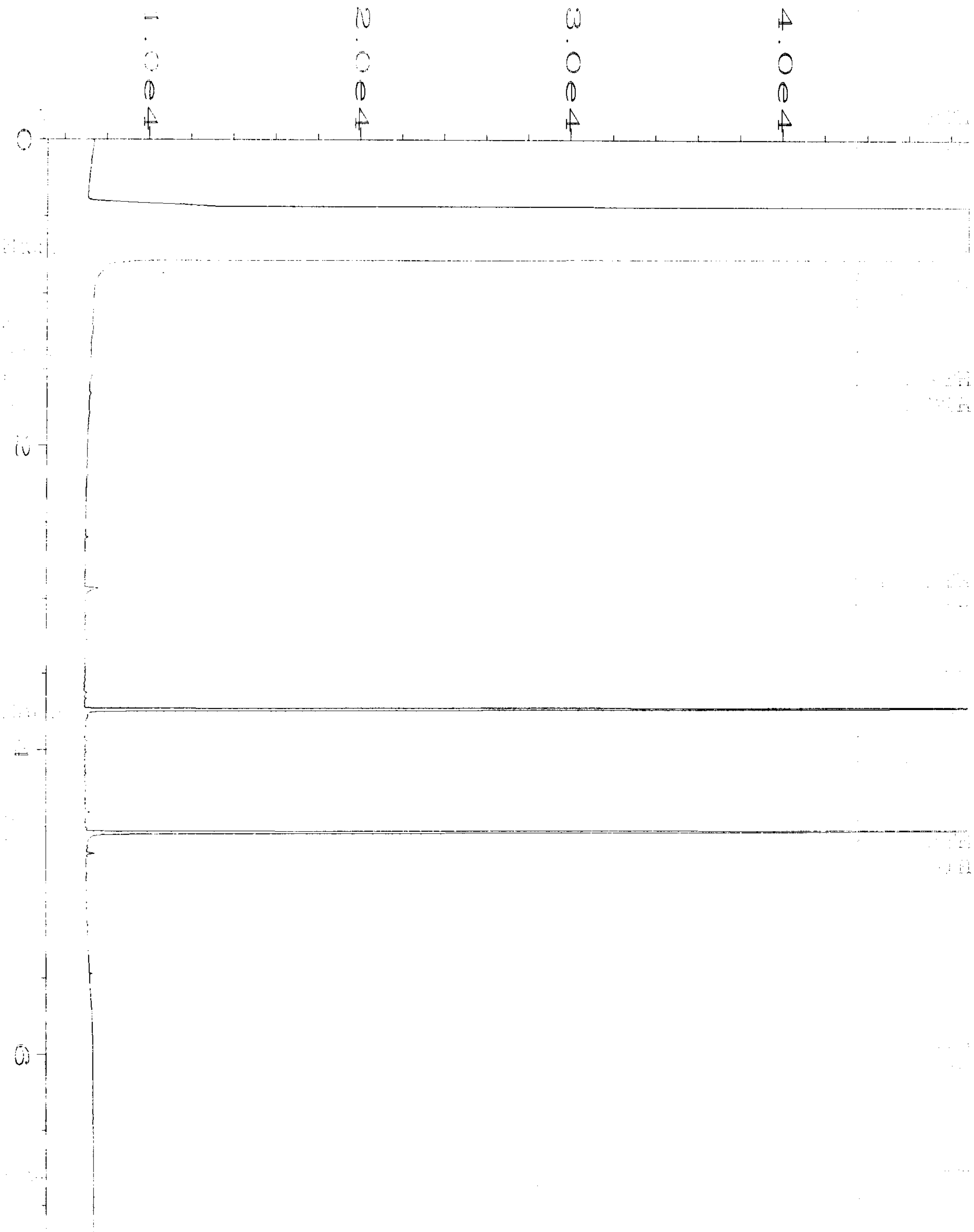
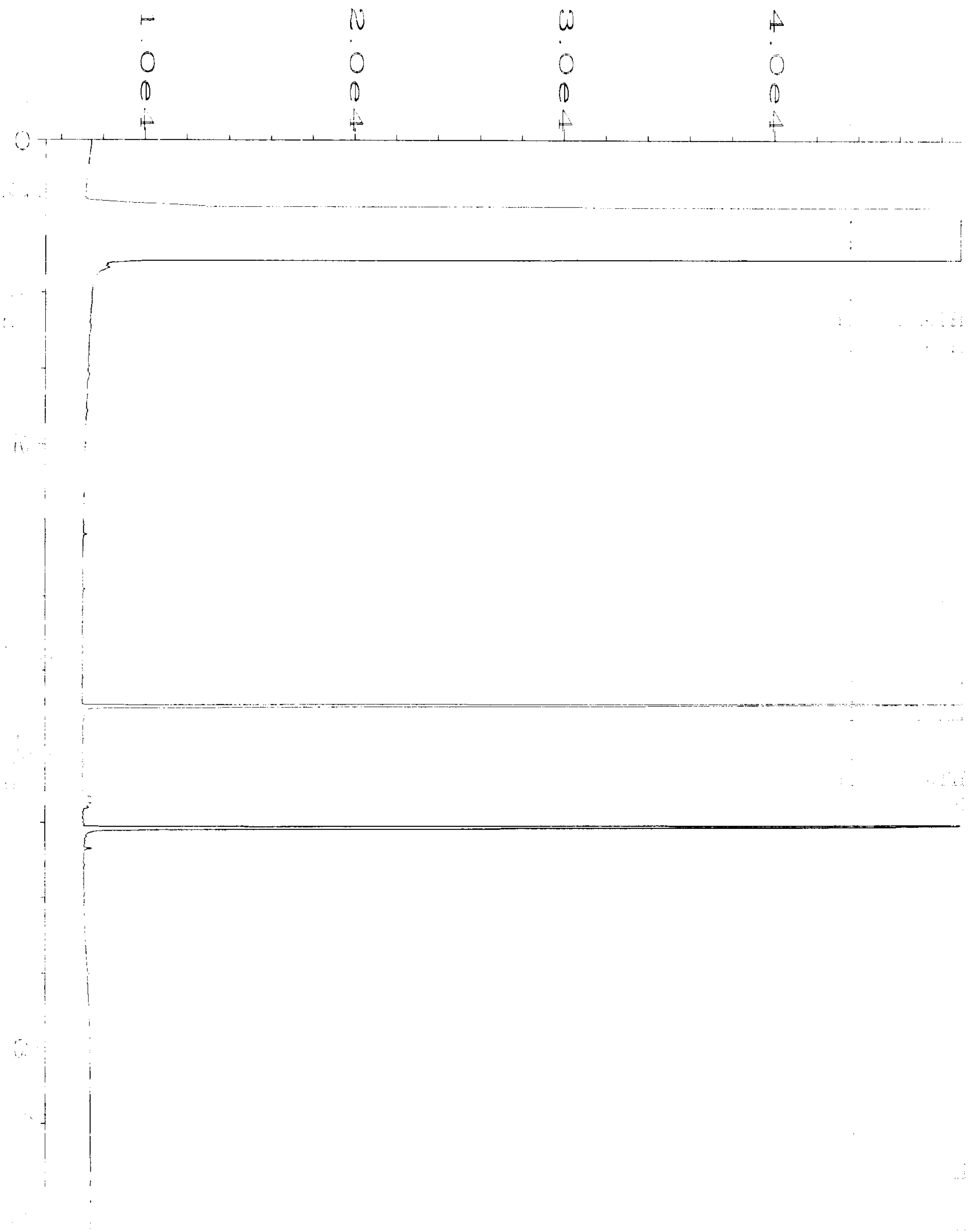
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 45
Sample Name	: 606053-17	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 06 Jun 16 04:13 PM	Instrument Method:	DX.MTH
Report Created on:	07 Jun 16 10:46 AM	Analysis Method	: DX.MTH



Data File Name	:	C:\HPCHEM\1\DATA\06-06-16\046F0501.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC1	Vial Number	:	46
Sample Name	:	606053-19	Injection Number	:	1
Run Time Bar Code	:		Sequence Line	:	5
Acquired on	:	06 Jun 16 04:25 PM	Instrument Method	:	DX.MTH
Report Created on	:	07 Jun 16 10:46 AM	Analysis Method	:	DX.MTH

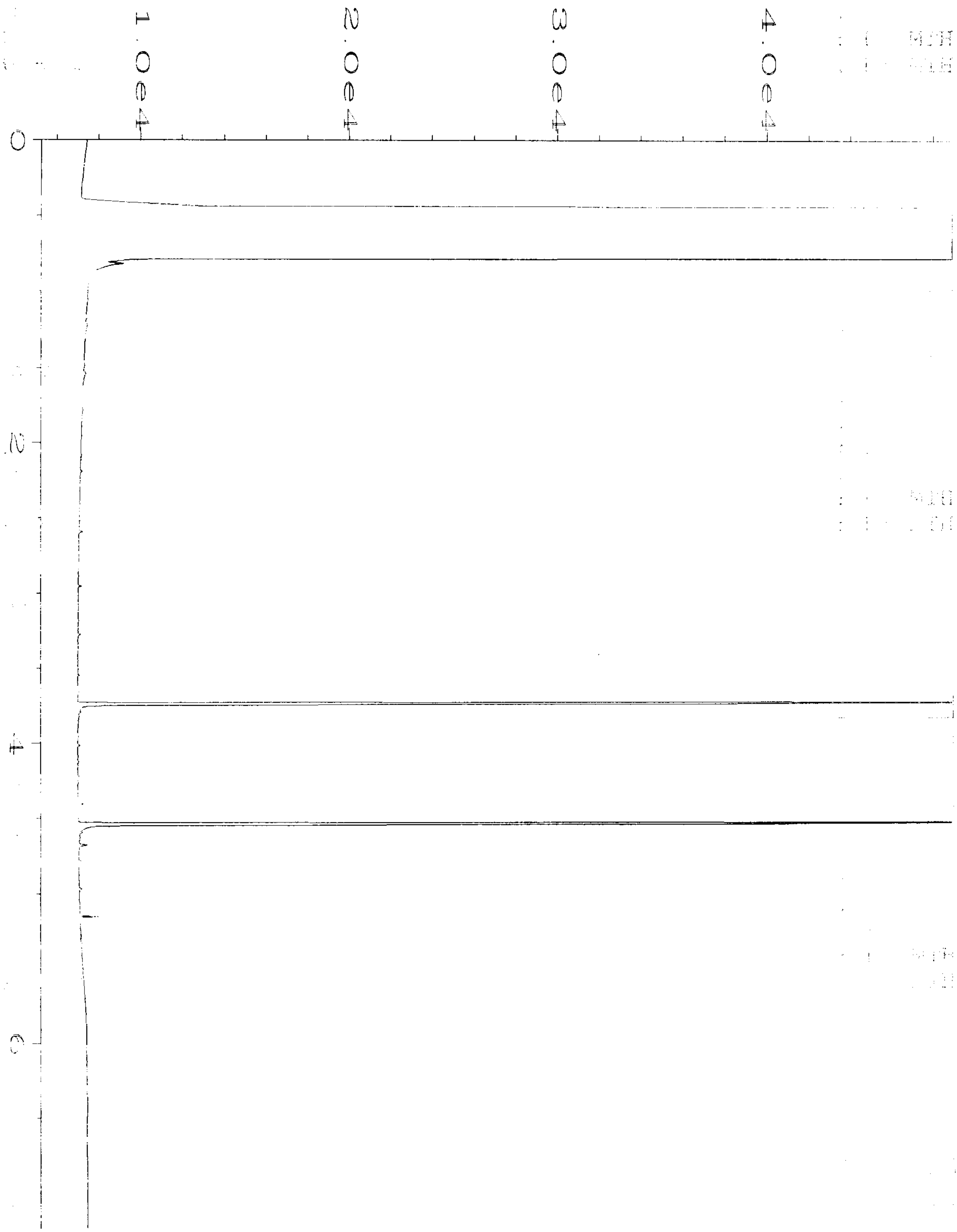


Data File Name	: C:\HPCHEM\1\DATA\06-06-16\047F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 47
Sample Name	: 606053-22	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 06 Jun 16 04:36 PM	Instrument Method:	DX.MTH
Report Created on:	07 Jun 16 10:47 AM	Analysis Method	: DX.MTH



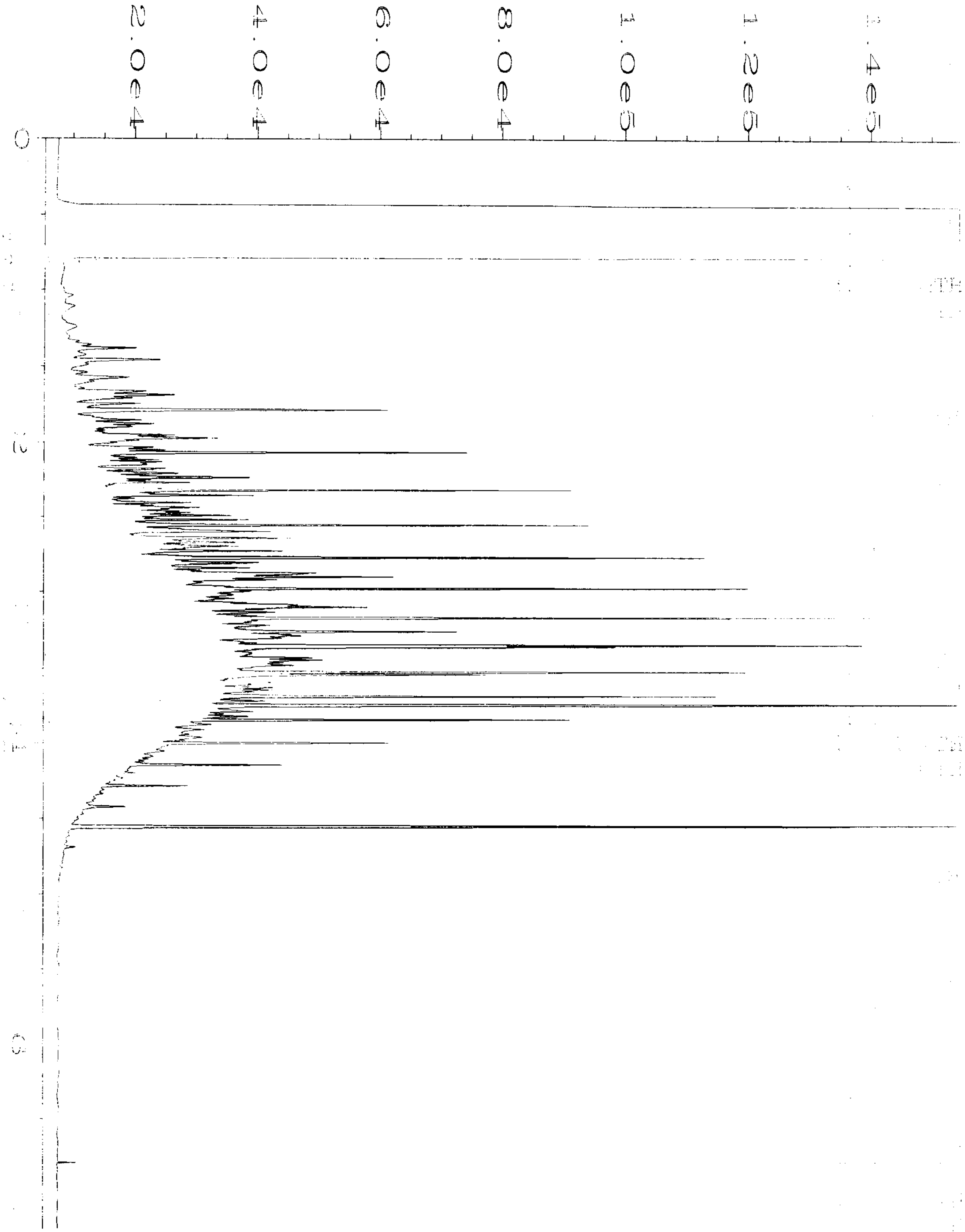
Data File Name : C:\HPCHEM\1\DATA\06-06-16\048F0501.D
Operator : mwdl
Instrument : GC1
Sample Name : 606053-24
Run Time Bar Code:
Acquired on : 06 Jun 16 04:48 PM
Report Created on: 07 Jun 16 10:47 AM

Page Number : 1
Vial Number : 48
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\1\DATA\06-06-16\025F0301.D
Operator : mwdl
Instrument : GC1
Sample Name : 06-1148 mb
Run Time Bar Code:
Acquired on : 06 Jun 16 12:06 PM
Report Created on: 07 Jun 16 10:47 AM

Page Number : 1
Vial Number : 25
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	:	C:\HPCHEM\1\DATA\06-06-16\003F0201.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC1	Vial Number	:	3
Sample Name	:	500 Dx 45-182D	Injection Number	:	1
Run Time Bar Code	:		Sequence Line	:	2
Acquired on	:	06 Jun 16 06:35 AM	Instrument Method	:	DX.MTH
Report Created on	:	07 Jun 16 10:47 AM	Analysis Method	:	DX.MTH

606053

SAMPLE CHAIN OF CUSTODY

ME 6/3/16 VS4/BI4

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005-01

REMARKS

Page # 1 of 3

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

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	CVOCs by 8260B	MTCA 5 Metals by EPA 200.8	PCBs by EPA 8082	X-per RR 6/3/16 mg Notes
																~~HOLD~~
B16-4.0	B16	4.0	01 A-E	6/2/16	0850	Soil	5	X						X		
B16-7.5	B16	7.5	02		0915											
B16-12.0	B16	12.0	03		0940											
B15-4.0	B15	4.0	04		1020											
B15-8.0	B15	8.0	05		1035											
B13-4.0	B13	4.0	06		1100			X						X		
B13-8.0	B13	8.0	07		1135											
B13-12.0	B13	12.0	08		1205											
B11-5.0	B11	5.0	09		1125											
B12-4.0	B12	4.0	10		1305									X		

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

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Toch	Clare Tochilin	SoundEarth	6/3/16	0705
Received by: S. Osborn	S. Osborn	F&B, Inc.	6.3.16	07:05
Relinquished by:				
Received by:		Samples received at 3 °C		

606053

ME 6/3/16 VS4/ BI4

SAMPLE CHAIN OF CUSTODY

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005-01

REMARKS

Page # 2 of 3

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

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

Sample ID	Sample Location	Sample Depth	Lab ID (NP 6/3)	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	CVOCs by 8260B	MTCA 5 Metals by EPA 200.8	PCBs by EPA 8082	Notes
B12-8.0	B12	8.0	21 11 A-E	6/2/16	1330	Soil	5									~~HOLD~~
B12-11.5	B12	11.5	22 12		1345											
B05-4.0	B05	4.0	23 13		1400			X								
B05-8.0	B05	8.0	24 14		1410											
B05-10.5	B05	10.5	25 15		1415			X								
B04-4.0	B04	4.0	26 16		1435			X							X	
B04-8.0	B04	8.0	27 17		1440			X								
B04-12.0	B04	12.0	28 18		1455						X					
B03-4.0	B03	4.0	29 19		1506			X	X	X				X		
B03-8.0	B03	8.0	30 20		1530				X	X						

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Toch	Clare Tochilin	SoundEarth	6/3/16	0705
Received by: S. Obr	S. Oborn	F&B Inc.	6.3.16	07:05
Relinquished by:				
Received by:		Samples received at 3 °C		

FORMS\COC\COC.DOC

606053

SAMPLE CHAIN OF CUSTODY

ME 6/3/16 VS4/BE4

Page # 3 of 3

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature)

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005-01

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	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	CVOCs by 8260B	MTCA 5 Metals by EPA 200.8	PCBs by EPA 8082	Notes
								ANALYSES REQUESTED								~~HOLD~~
B03-12.0	B03	12.0	21 A-E	6/2/16	1545	Soil	5									
B01-4.0	B01	4.0	22		1610			X								
B01-8.0	B01	8.0	23		1615											
B02-4.0	B02	4.0	24		1630			X						X		
B02-8.0	B02	8.0	25		1640											

CT 6/2/16

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

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Clare Tochilin	SoundEarth	6/3/16	0705
Received by:	S. Olson	S. Olson	F&B, Inc.	6.3.16	07:05
Relinquished by:					
Received by:					

Samples received at 3 °C

Friedman & Bruya, Inc. #606382

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 28, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on June 21, 2016 from the SOU_0811-005_ 20160621, F&BI 606382 project. There are 4 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
c: Clare Tochilin
SOU0628R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 21, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20160621, F&BI 606382 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
606382 -01	DB01-3.5
606382 -02	DB01-8.5
606382 -03	DB01-13.5
606382 -04	DB01-18.5
606382 -05	DB01-23.5
606382 -06	DB01-28.5
606382 -07	DB01-33.5
606382 -08	DB02-3.5
606382 -09	DB02-8.5
606382 -10	DB02-13.5
606382 -11	DB02-18.5
606382 -12	DB02-24.0

All quality control requirements were acceptable.

Date of Report: 06/28/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606382
Date Extracted: 06/23/16
Date Analyzed: 06/23/16 and 06/24/16

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 56-165)
DB01-3.5 606382-01	<50	<250	91
DB02-3.5 606382-08	<50	<250	94
Method Blank 06-1272 MB2	<50	<250	92

Date of Report: 06/28/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606382

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

Laboratory Code: 606374-01 (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	101	107	73-135	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	105	74-139

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.

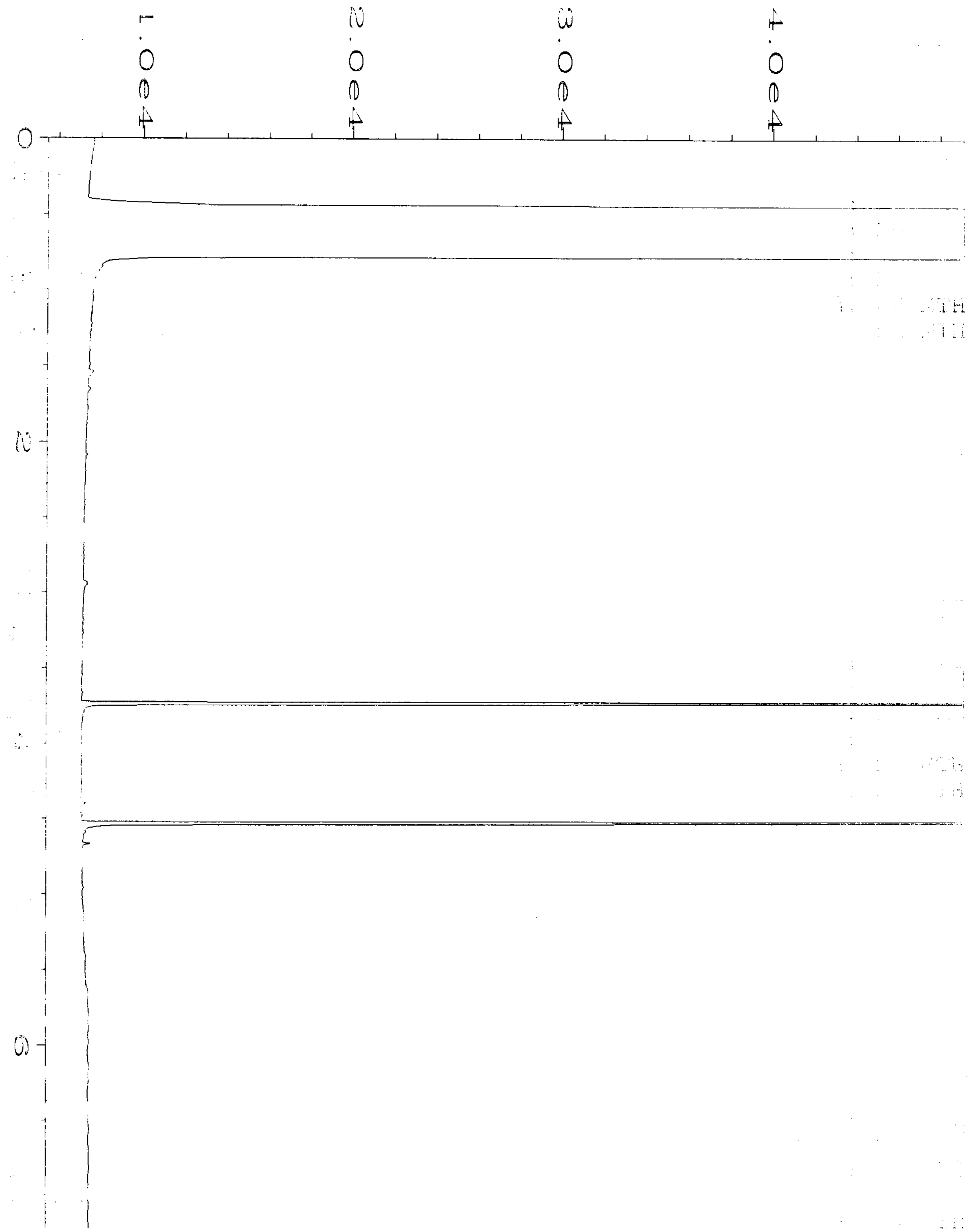
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

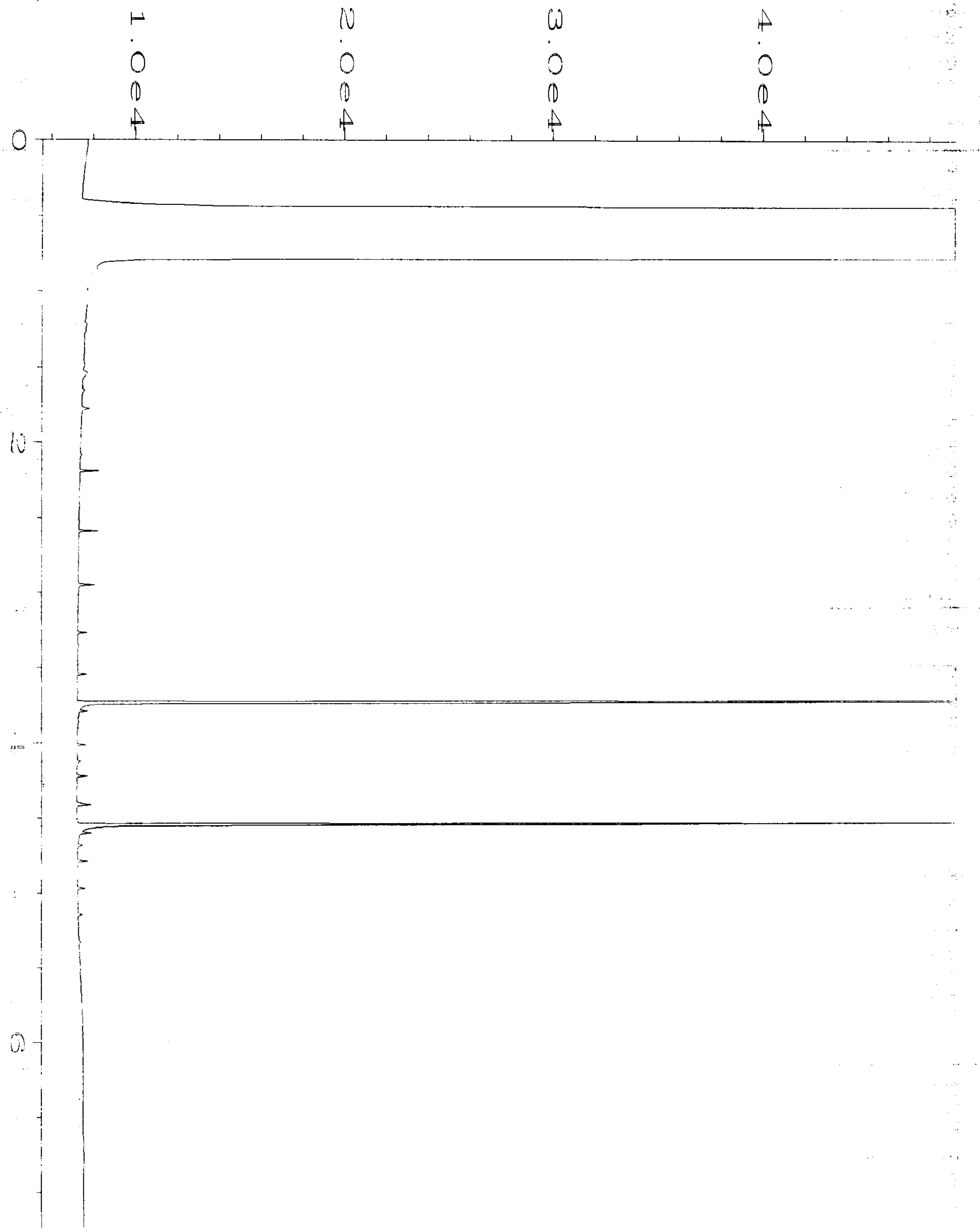
vo - The value reported fell outside the control limits established for this analyte.

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

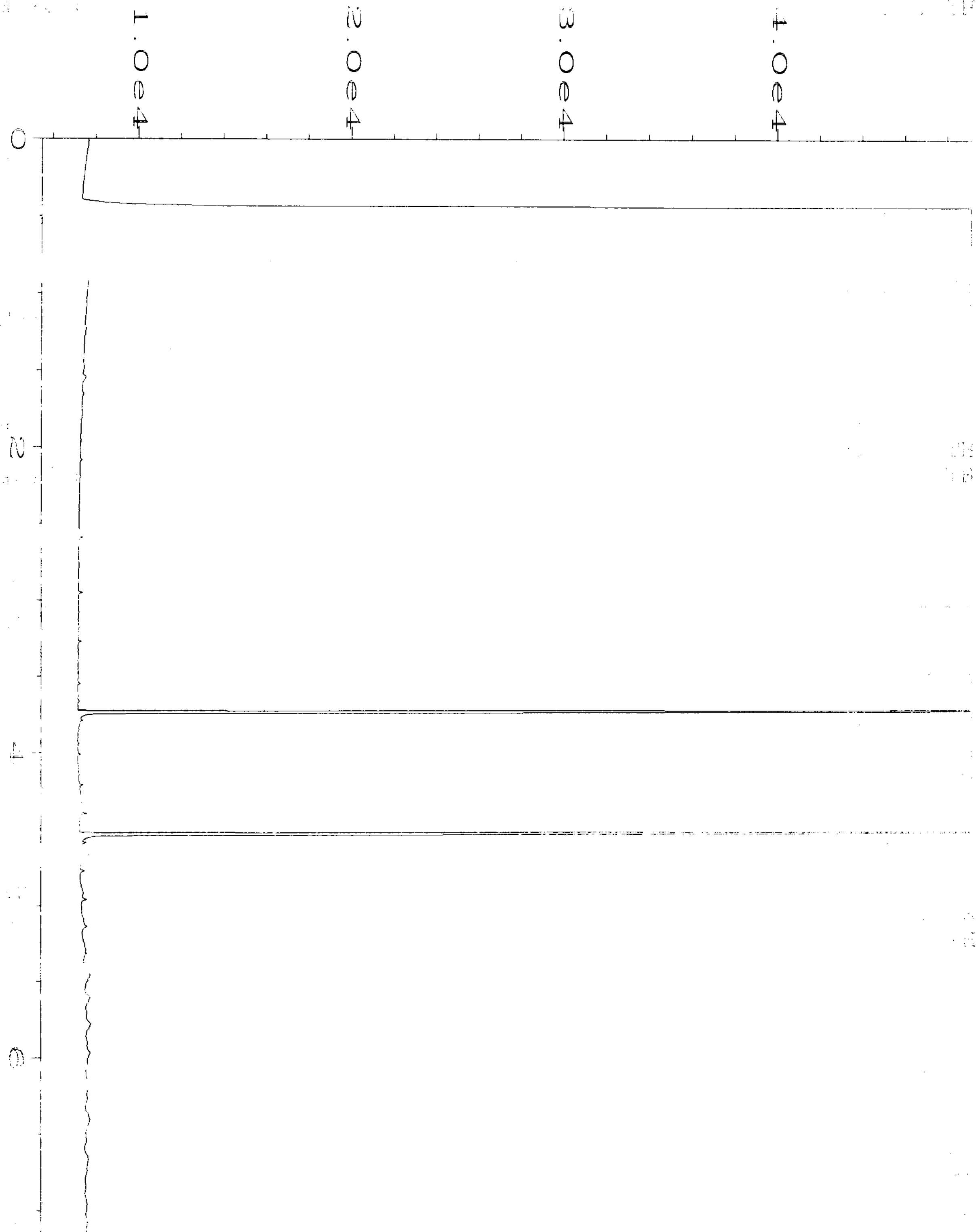


Data File Name : C:\HPCHEM\1\DATA\06-23-16\033F0601.D
Operator : mwdl
Instrument : GC1
Sample Name : 606382-01
Run Time Bar Code:
Acquired on : 23 Jun 16 04:46 PM
Report Created on: 24 Jun 16 09:28 AM

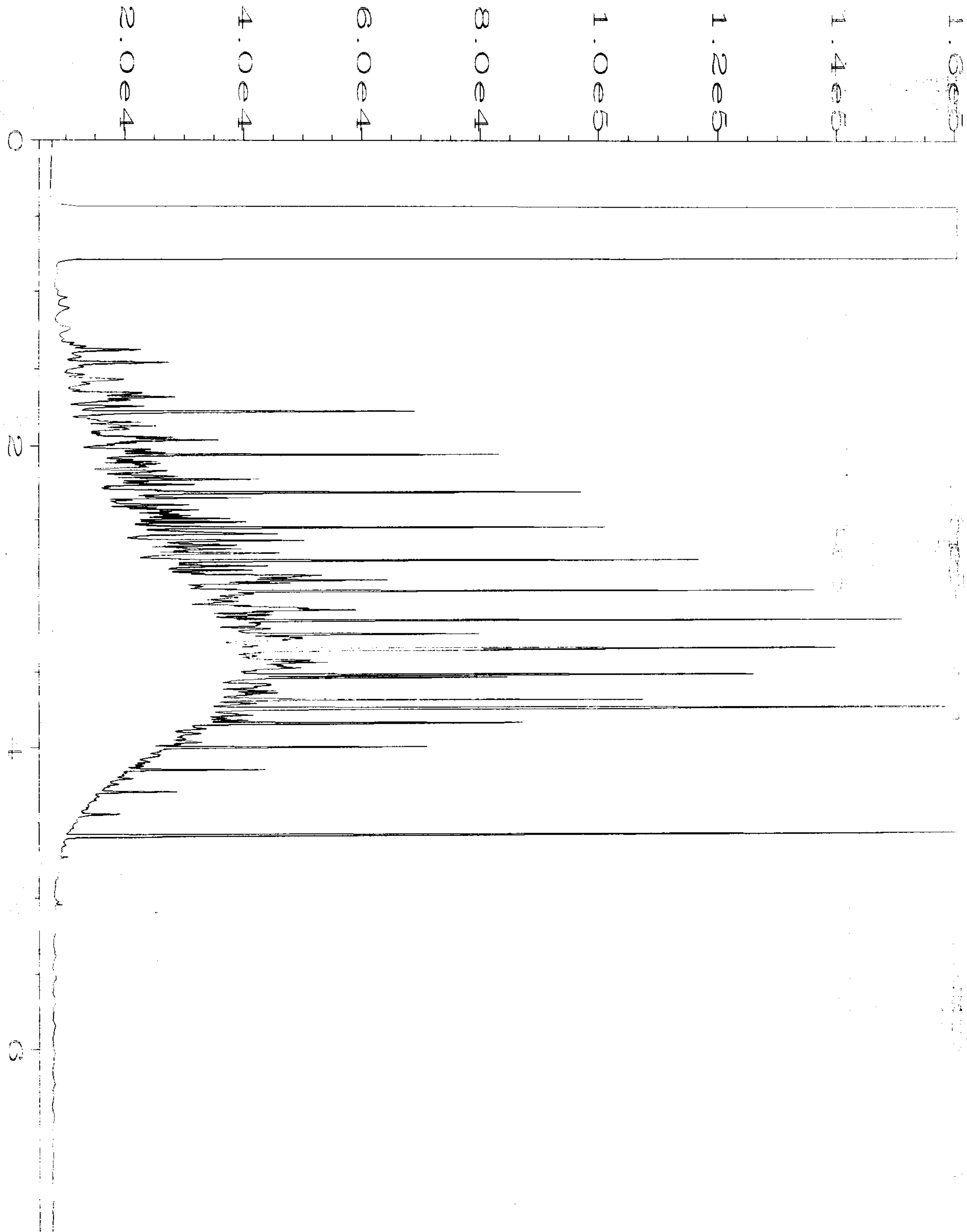
Page Number : 1
Vial Number : 33
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	:	C:\HPCHEM\1\DATA\06-24-16\016F0401.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC1	Vial Number	:	16
Sample Name	:	606382-08 rr	Injection Number	:	1
Run Time Bar Code	:		Sequence Line	:	4
Acquired on	:	24 Jun 16 11:23 AM	Instrument Method	:	DX.MTH
Report Created on	:	24 Jun 16 11:40 AM	Analysis Method	:	DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-23-16\032F0601.D			
Operator	: mwdl	Page Number	:	1
Instrument	: GC1	Vial Number	:	32
Sample Name	: 06-1272 mb2	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	6
Acquired on	: 23 Jun 16 04:35 PM	Instrument Method:		DX.MTH
Report Created on:	24 Jun 16 09:28 AM	Analysis Method	:	DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\06-23-16\003F0201.D			
Operator	: mwdl	Page Number	:	1
Instrument	: GC1	Vial Number	:	3
Sample Name	: 500 Dx 45-182D	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	2
Acquired on	: 23 Jun 16 06:05 AM	Instrument Method:		DX.MTH
Report Created on:	24 Jun 16 09:28 AM	Analysis Method	:	DX.MTH

606382
[redacted]

SAMPLE CHAIN OF CUSTODY

ME 06/21/16 CT2/VS2

[redacted] Page # 1 of 2

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch	
PROJECT NAME/NO. 18th and Jackson Property	PO # 0811-005
REMARKS	

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 week
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	~~HOLD~~			Notes
DB01-3.5	DB01	3.5	01 A-E	6/21/16	0900	Soil	5	X					X			(X) analyze
DB01-8.5	" "	8.5	02	↓	0910	↓	↓						X			as marked
DB01-13.5	" "	13.5	03		0920								X			per CT
DB01-18.5	" "	18.5	04		0935								X			6/23/16
DB01-23.5	" "	23.5	05		0945								X			ME
DB01-28.5	" "	28.5	06		0950								X			
DB01-33.5	" "	33.5	07		1000								X			
DB02-3.5	DB02	3.5	08		1345			X					X			
DB02-8.5	↓	8.5	09		1350								X			
DB02-13.5	↓	13.5	10	↓	1400	↓	↓						X			

Samples received at 4 °C

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Toch	Clare Tochilin	SoundEarth	6/21/16	1640
Received by:	[signature]	Matt Hagstrom	FB Inc	6/21/16	1640
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

606382

SAMPLE CHAIN OF CUSTODY

M E 06/21/16

[redacted]age # 2 of 2

Send Report to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch	
PROJECT NAME/NO. 18th and Jackson Property	PO # 0811-005
REMARKS	

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 week
Rush charges authorized by:
SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HOLD			Notes
DB02-18.5	DB02	18.5	11 A-E	6/21/16	1405	Soil	5						X			
DB02-24.0	DB02	24.0	12	6/21/16	1415	Soil	5						X			

GT 6/21/16

Samples received at 4 °C

Friedman & Bruya, Inc.

3012 16th Avenue West

Seattle, WA 98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Toch.	Clare Tochilin	SoundEarth	6/21/16	1640
Received by:		Matt Layston	FBI Inc	6/21/16	1640
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

Remedial Investigation – Groundwater Laboratory Analytical Reports

Friedman & Bruya, Inc. 606383

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 30, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on June 21, 2016 from the SOU_0811-005_ 20160621, F&BI 606383 project. There are 6 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
c: Clare Tochilin
SOU0630R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 21, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20160621, F&BI 606383 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
606383 -01	DB02-20160621

All quality control requirements were acceptable.

Date of Report: 06/30/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606383
Date Extracted: 06/22/16
Date Analyzed: 06/22/16

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)
DB02-20160621 cf 606383-01	<1	<1	<1	<3	<100	91
Method Blank 06-1243 MB	<1	<1	<1	<3	<100	91

Date of Report: 06/30/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606383
Date Extracted: 06/24/16
Date Analyzed: 06/24/16

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
DB02-20160621 606383-01 1/1.6	<80	<400	83
Method Blank 06-1285 MB	<50	<250	92

Date of Report: 06/30/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606383

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

Laboratory Code: 606383-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	91	65-118
Toluene	ug/L (ppb)	50	92	72-122
Ethylbenzene	ug/L (ppb)	50	92	73-126
Xylenes	ug/L (ppb)	150	91	74-118
Gasoline	ug/L (ppb)	1,000	99	69-134

Date of Report: 06/30/16
Date Received: 06/21/16
Project: SOU_0811-005_ 20160621, F&BI 606383

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	109	121	61-133	10

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.

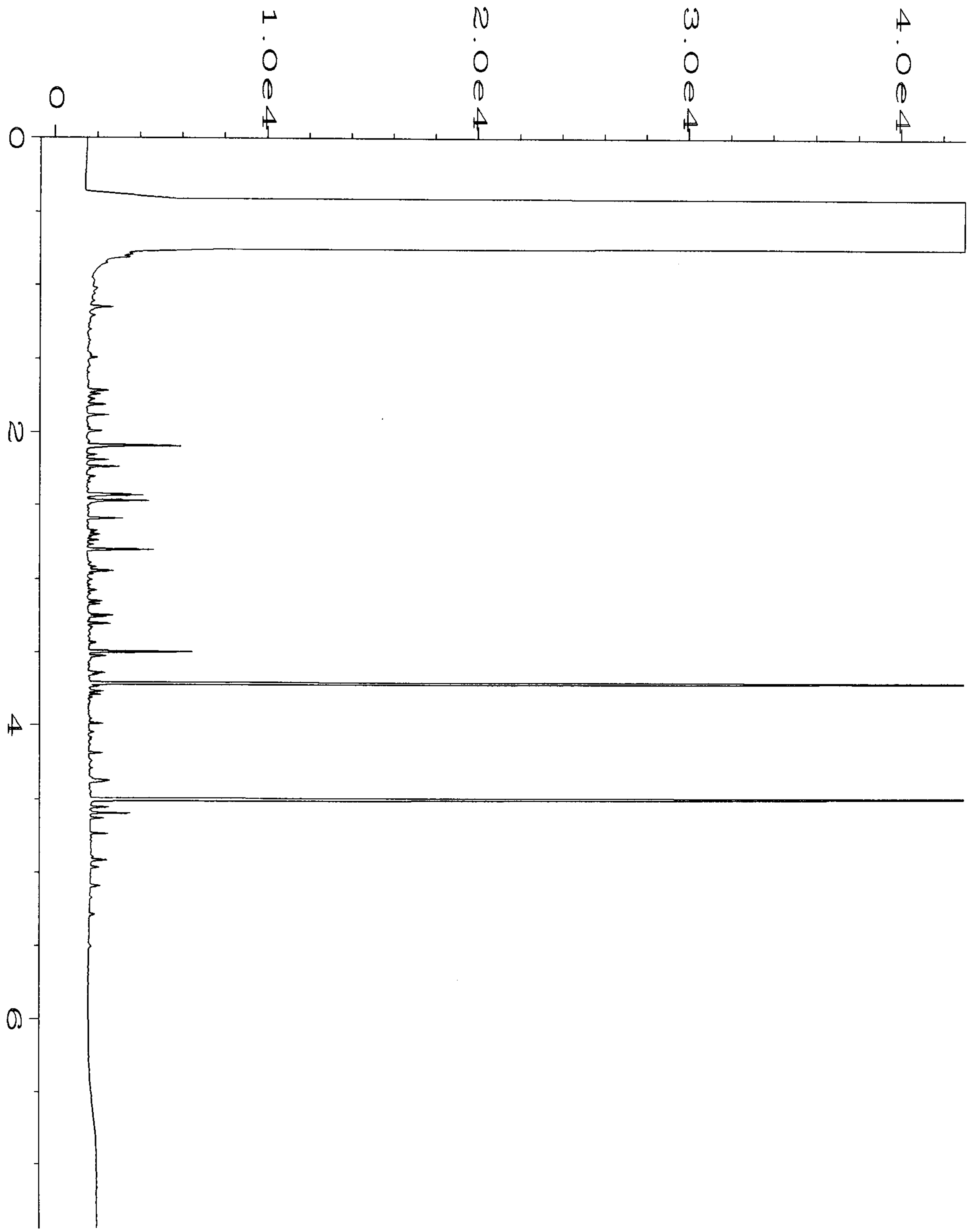
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

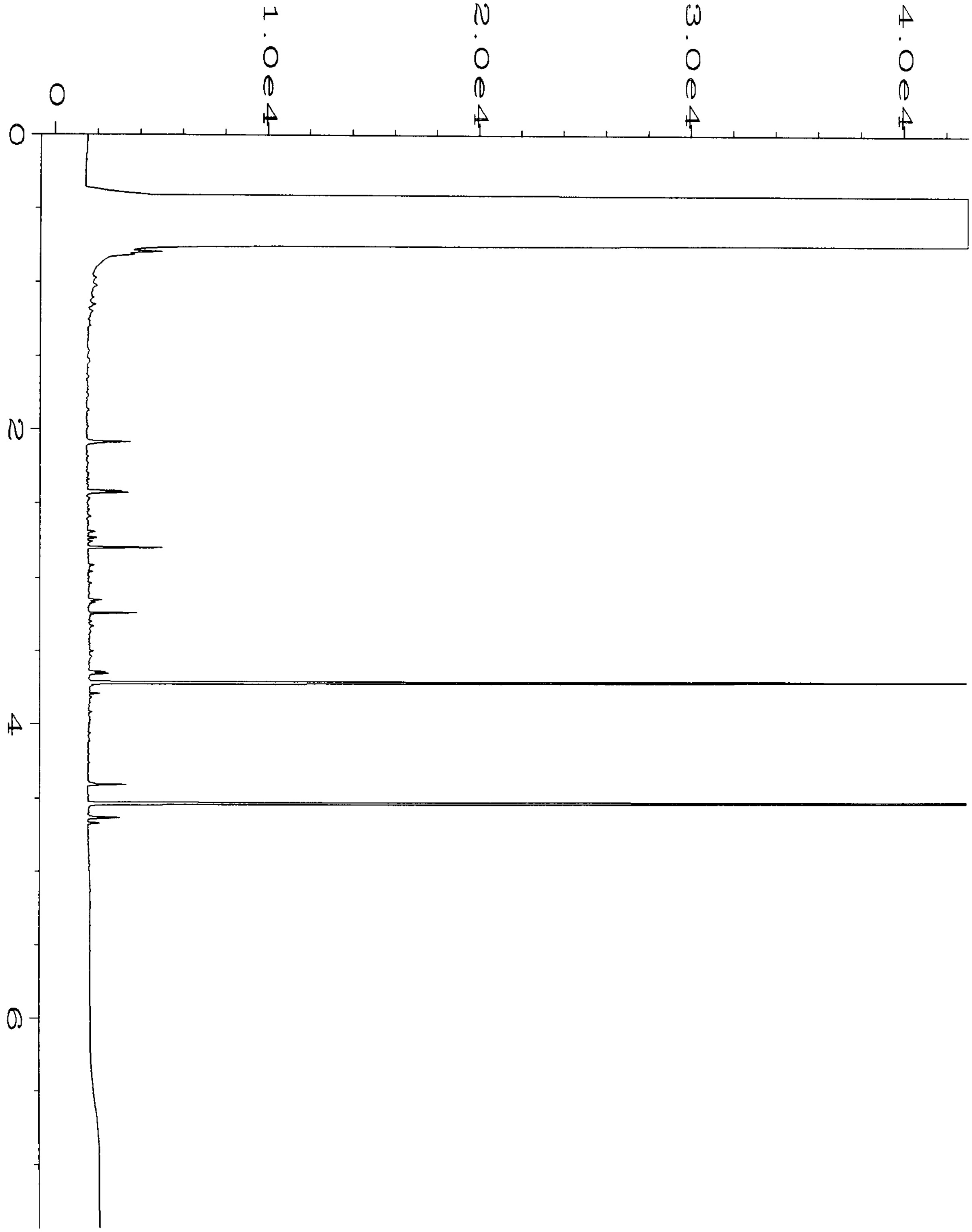
vo - The value reported fell outside the control limits established for this analyte.

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



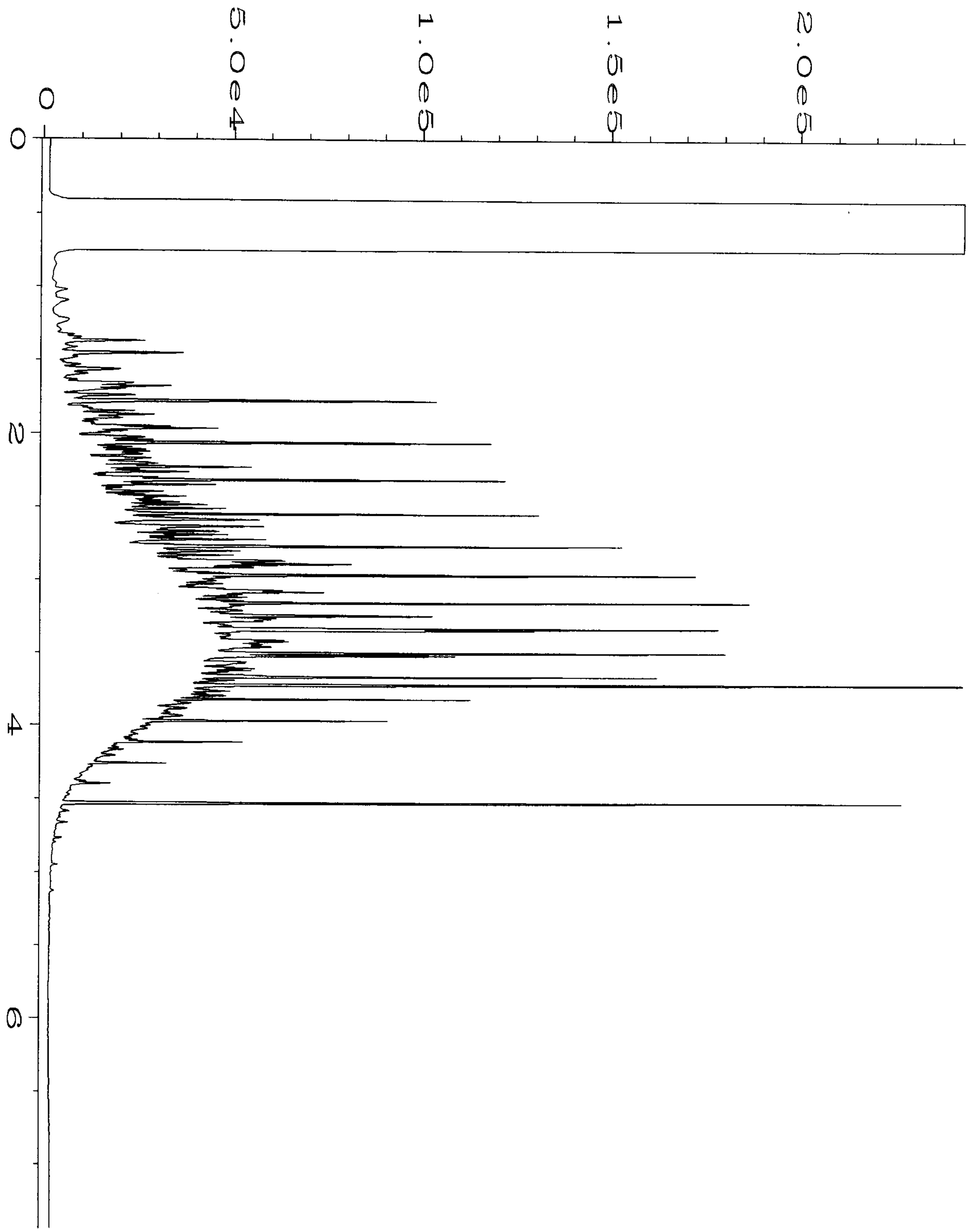
Data File Name : C:\HPCHEM\4\DATA\06-24-16\020F0301.D

Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 20
Sample Name	: 606383-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 24 Jun 16 02:40 PM	Instrument Method:	DX.MTH
Report Created on:	27 Jun 16 02:59 PM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\4\DATA\06-24-16\017F0301.D
Operator : mwdl
Instrument : GC#4
Sample Name : 06-1285 mb
Run Time Bar Code:
Acquired on : 24 Jun 16 02:06 PM
Report Created on: 27 Jun 16 02:59 PM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\06-24-16\003F0201.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 3
Sample Name	: 500 Dx 45-182D	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 24 Jun 16 06:21 AM	Instrument Method:	DX.MTH
Report Created on:	27 Jun 16 03:00 PM	Analysis Method	: DX.MTH

606383

SAMPLE CHAIN OF CUSTODY ME6/21/16

VI/A03

Page # 1 of 1

Send ~~Report~~ to Rob Roberts, Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005

REMARKS

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 week
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
DB02-20160621	DB02	—	01A-D	6/21/16	1430	H_2O	4	X	X	X						

CJT 6/21/16

Samples received at 4 °C

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Toch	Clare Tochilin	SoundEarth	6/21/16	1640
Received by:		Matt Langston	FB Inc	6/21/16	1640
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

Friedman & Bruya, Inc. #606424

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 30, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on June 23, 2016 from the SOU_0811-005_ 20160623, F&BI 606424 project. There are 6 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
c: Clare Tochilin
SOU0630R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 23, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20160623, F&BI 606424 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
606424 -01	MW01-20160623

All quality control requirements were acceptable.

Date of Report: 06/30/16
Date Received: 06/23/16
Project: SOU_0811-005_ 20160623, F&BI 606424
Date Extracted: 06/24/16
Date Analyzed: 06/24/16

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)
MW01-20160623 606424-01	<1	<1	<1	<3	<100	95
Method Blank 06-1245 MB	<1	<1	<1	<3	<100	86

Date of Report: 06/30/16
Date Received: 06/23/16
Project: SOU_0811-005_ 20160623, F&BI 606424
Date Extracted: 06/24/16
Date Analyzed: 06/24/16

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW01-20160623 606424-01	<50	<250	85
Method Blank 06-1285 MB	<50	<250	92

Date of Report: 06/30/16
Date Received: 06/23/16
Project: SOU_0811-005_ 20160623, F&BI 606424

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: 606424-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	92	65-118
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	93	73-126
Xylenes	ug/L (ppb)	150	91	74-118
Gasoline	ug/L (ppb)	1,000	97	69-134

Date of Report: 06/30/16
Date Received: 06/23/16
Project: SOU_0811-005_ 20160623, F&BI 606424

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	109	121	61-133	10

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.

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

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

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

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

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

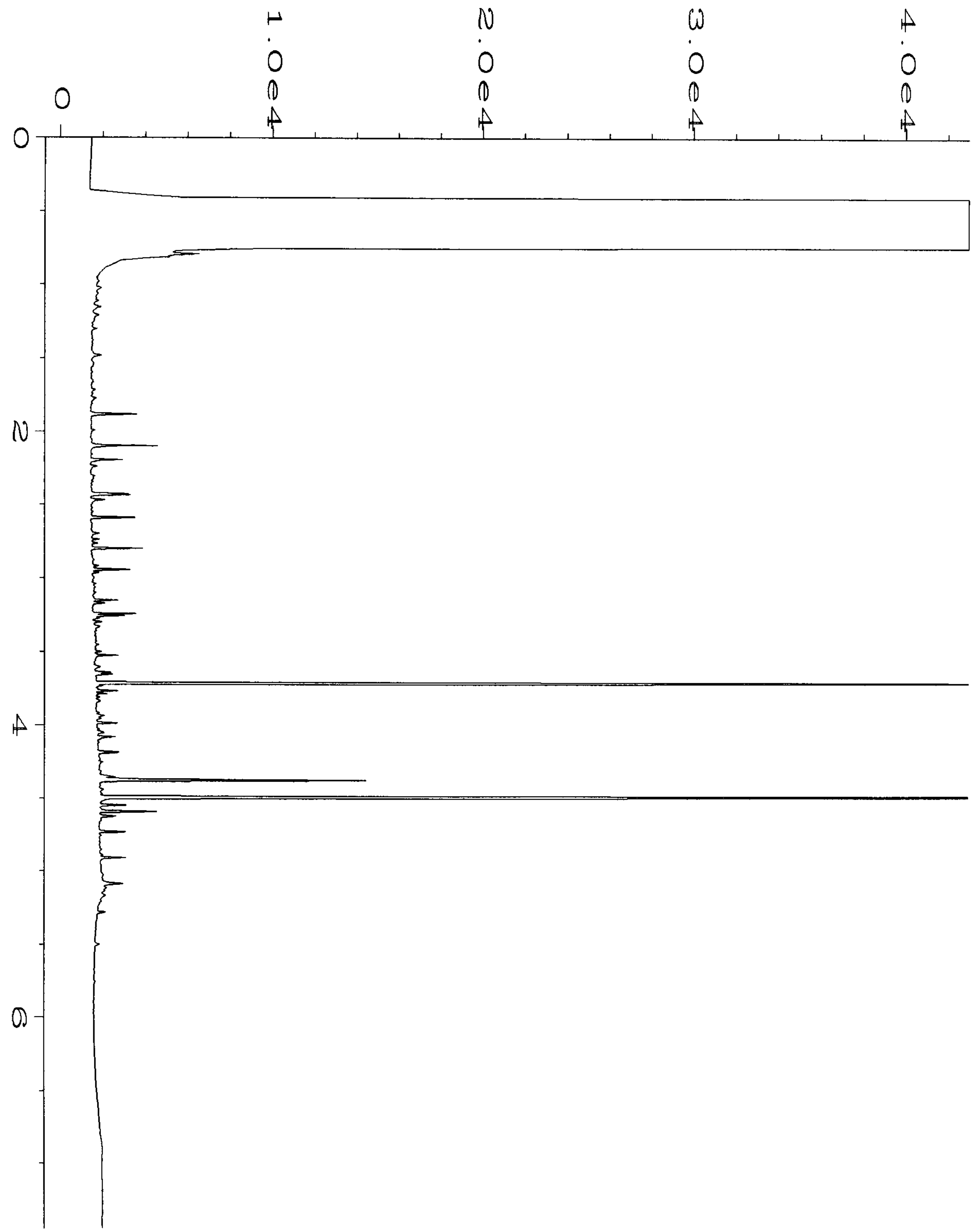
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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

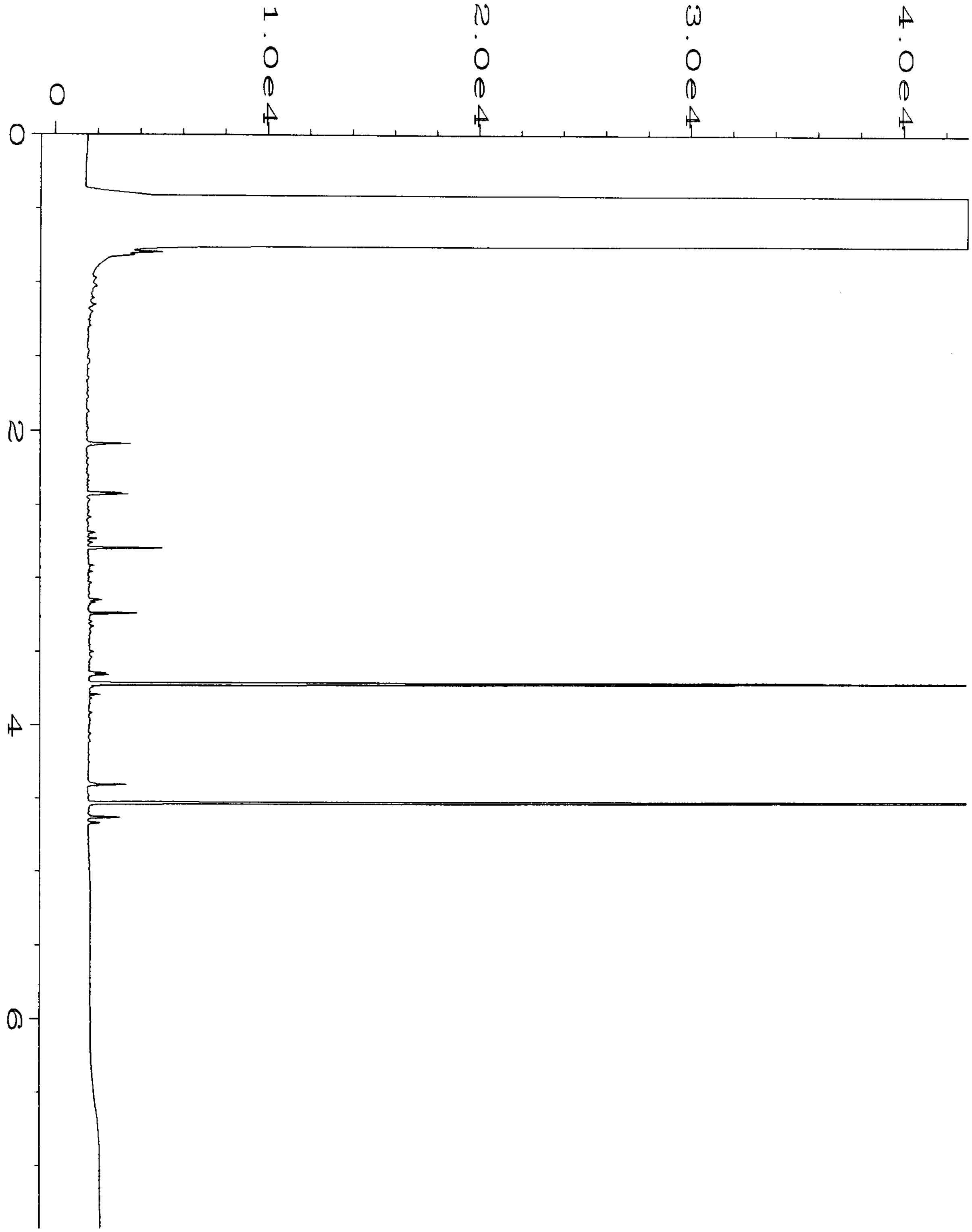
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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

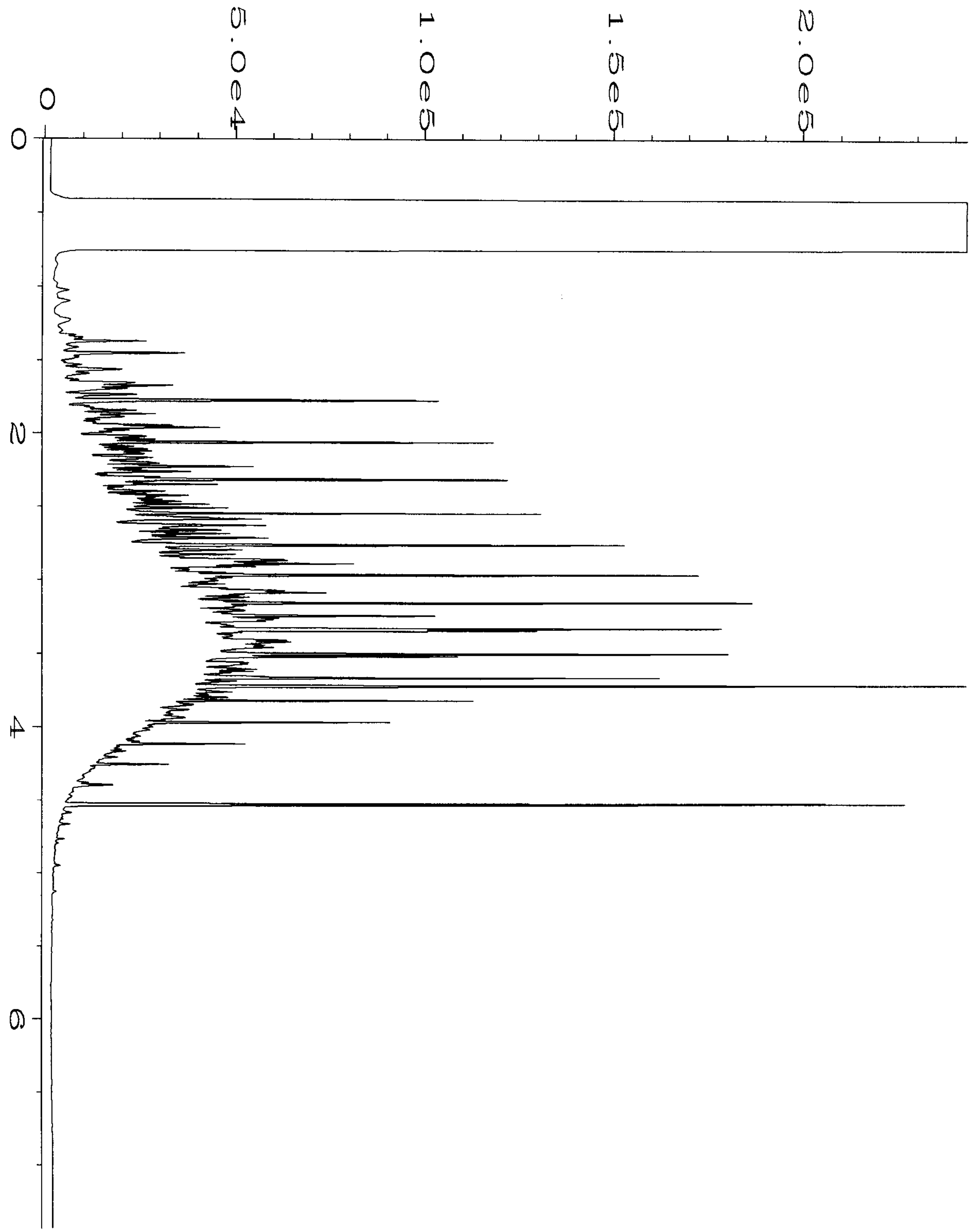
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\4\DATA\06-24-16\023F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 23
Sample Name	: 606424-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 24 Jun 16 03:38 PM	Instrument Method:	DX.MTH
Report Created on:	27 Jun 16 03:02 PM	Analysis Method	: DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\06-24-16\017F0301.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 17
Sample Name	: 06-1285 mb	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 24 Jun 16 02:06 PM	Instrument Method:	DX.MTH
Report Created on:	27 Jun 16 03:02 PM	Analysis Method	: DX.MTH



Data File Name	:	C:\HPCHEM\4\DATA\06-24-16\003F0201.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC#4	Vial Number	:	3
Sample Name	:	500 Dx 45-182D	Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	2
Acquired on	:	24 Jun 16 06:21 AM	Instrument Method:		DX.MTH
Report Created on:		27 Jun 16 03:02 PM	Analysis Method	:	DX.MTH

606424

SAMPLE CHAIN OF CUSTODY

ME 06/23/16 V1/A04

Send Report to: Rob Roberts, Clare Tochilin

Company: SoundEarth Strategies, Inc.

Address: 2811 Fairview Avenue E, Suite 2000

City, State, ZIP: Seattle, Washington 98102

Phone #: 206-306-1900 Fax #: 206-306-1907

SAMPLERS (*signature*): Clare Tochilin

Page # 1 of 1

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005

REMARKS

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 week
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
MW01-20160623	MW01	—	01 A-D	6/23/16	0935	H_2O	4	X	X	X						

CT 6/23/16

Samples received at 5 °C

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	Clare Tochilin	SoundEarth	6/23/16	1045
Received by:	[signature]	Nhan Phan	FeBI	6/23/16	1045
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

Friedman & Bruya, Inc. #609055 and additional

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

September 13, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on September 2, 2016 from the SOU_0811-005_ 20160902, F&BI 609055 project. There are 13 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
c: Clare Tochilin
SOU0913R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 2, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20160902, F&BI 609055 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
609055 -01	DB04-20160902
609055 -02	DB05-20160902

A 200.8 internal standard failed the acceptance criteria for the samples due to matrix interferences. In addition, the chromium calibration standard did not pass the acceptance criteria for the full concentration analysis of the samples. The data were flagged accordingly. The samples were diluted and reanalyzed.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	DB04-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/08/16	Lab ID:	609055-01
Date Analyzed:	09/08/16	Data File:	609055-01.115
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.7
Cadmium	<1
Chromium	47.7 J ca
Lead	10.0
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	DB04-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/08/16	Lab ID:	609055-01 x10
Date Analyzed:	09/09/16	Data File:	609055-01 x10.035
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	80.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	DB05-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/08/16	Lab ID:	609055-02
Date Analyzed:	09/08/16	Data File:	609055-02.117
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	23.2
Cadmium	1.60
Chromium	116 J ca
Lead	25.7
Mercury	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	DB05-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/08/16	Lab ID:	609055-02 x10
Date Analyzed:	09/09/16	Data File:	609055-02 x10.036
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Chromium	277

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/09/16	Lab ID:	I6-595 mb2
Date Analyzed:	09/09/16	Data File:	I6-595 mb2.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	DB04-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/06/16	Lab ID:	609055-01
Date Analyzed:	09/06/16	Data File:	090633.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	DB05-20160902	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/06/16	Lab ID:	609055-02
Date Analyzed:	09/06/16	Data File:	090634.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	97	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260C

Client Sample ID:	Method Blank	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_0811-005_ 20160902, F&BI 609055
Date Extracted:	09/06/16	Lab ID:	06-1804 mb
Date Analyzed:	09/06/16	Data File:	090615.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JS

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1
Bromomethane	<1	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<10	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<1
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<10	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 09/13/16
Date Received: 09/02/16
Project: SOU_0811-005_ 20160902, F&BI 609055

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

Laboratory Code: 608555-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	102	104	70-130	2
Cadmium	ug/L (ppb)	5	<1	107	108	70-130	1
Chromium	ug/L (ppb)	20	<1	103	104	70-130	1
Lead	ug/L (ppb)	10	<1	97	100	70-130	3
Mercury	ug/L (ppb)	10	<1	94	96	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	97	85-115
Cadmium	ug/L (ppb)	5	106	85-115
Chromium	ug/L (ppb)	20	102	85-115
Lead	ug/L (ppb)	10	99	85-115
Mercury	ug/L (ppb)	10	94	85-115

Date of Report: 09/13/16
Date Received: 09/02/16
Project: SOU_0811-005_ 20160902, F&BI 609055

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

Laboratory Code: 609072-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	50	<1	91	10-172
Chloromethane	ug/L (ppb)	50	<10	88	25-166
Vinyl chloride	ug/L (ppb)	50	<0.2	101	36-166
Bromomethane	ug/L (ppb)	50	<1	125	47-169
Chloroethane	ug/L (ppb)	50	<1	120	46-160
Trichlorofluoromethane	ug/L (ppb)	50	<1	102	44-165
Acetone	ug/L (ppb)	250	<10	95	10-182
1,1-Dichloroethene	ug/L (ppb)	50	<1	97	60-136
Hexane	ug/L (ppb)	50	36	109 b	52-150
Methylene chloride	ug/L (ppb)	50	<5	102	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	<1	93	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	50	<1	90	72-129
1,1-Dichloroethane	ug/L (ppb)	50	<1	96	70-128
2,2-Dichloropropane	ug/L (ppb)	50	<1	90	36-154
cis-1,2-Dichloroethene	ug/L (ppb)	50	<1	89	71-127
Chloroform	ug/L (ppb)	50	<1	92	65-132
2-Butanone (MEK)	ug/L (ppb)	250	<10	104	10-129
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	<1	93	69-133
1,1,1-Trichloroethane	ug/L (ppb)	50	<1	85	60-146
1,1-Dichloropropene	ug/L (ppb)	50	<1	90	69-133
Carbon tetrachloride	ug/L (ppb)	50	<1	85	56-152
Benzene	ug/L (ppb)	50	12	92 b	76-125
Trichloroethene	ug/L (ppb)	50	<1	85	66-135
1,2-Dichloropropane	ug/L (ppb)	50	<1	99	78-125
Bromodichloromethane	ug/L (ppb)	50	<1	90	61-150
Dibromomethane	ug/L (ppb)	50	<1	93	66-141
4-Methyl-2-pentanone	ug/L (ppb)	250	<10	95	10-185
cis-1,3-Dichloropropene	ug/L (ppb)	50	<1	91	72-132
Toluene	ug/L (ppb)	50	3.0	95	76-122
trans-1,3-Dichloropropene	ug/L (ppb)	50	<1	100	76-130
1,1,2-Trichloroethane	ug/L (ppb)	50	<1	103	68-131
2-Hexanone	ug/L (ppb)	250	<10	125	10-185
1,3-Dichloropropane	ug/L (ppb)	50	<1	105	71-128
Tetrachloroethene	ug/L (ppb)	50	<1	95	10-226
Dibromochloromethane	ug/L (ppb)	50	<1	98	70-139
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	<1	99	69-134
Chlorobenzene	ug/L (ppb)	50	<1	95	77-122
Ethylbenzene	ug/L (ppb)	50	33	93 b	69-135
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	<1	91	73-137
m,p-Xylene	ug/L (ppb)	100	190	91 b	69-135
o-Xylene	ug/L (ppb)	50	11	89 b	60-140
Styrene	ug/L (ppb)	50	<1	94	71-133
Isopropylbenzene	ug/L (ppb)	50	4.0	90	65-142
Bromoform	ug/L (ppb)	50	<1	89	65-142
n-Propylbenzene	ug/L (ppb)	50	11	99 b	58-144
Bromobenzene	ug/L (ppb)	50	<1	99	75-124
1,3,5-Trimethylbenzene	ug/L (ppb)	50	38	96 b	66-137
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	<1	106	51-154
1,2,3-Trichloropropane	ug/L (ppb)	50	<1	108	53-150
2-Chlorotoluene	ug/L (ppb)	50	<1	123	66-127
4-Chlorotoluene	ug/L (ppb)	50	<1	103	65-130
tert-Butylbenzene	ug/L (ppb)	50	<1	95	65-137
1,2,4-Trimethylbenzene	ug/L (ppb)	50	97	96 b	59-146
sec-Butylbenzene	ug/L (ppb)	50	2.2	94	64-140
p-Isopropyltoluene	ug/L (ppb)	50	2.1	95	65-141
1,3-Dichlorobenzene	ug/L (ppb)	50	<1	97	72-123
1,4-Dichlorobenzene	ug/L (ppb)	50	<1	96	69-126
1,2-Dichlorobenzene	ug/L (ppb)	50	<1	99	69-128
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	<10	117	32-164
1,2,4-Trichlorobenzene	ug/L (ppb)	50	<1	99	66-136
Hexachlorobutadiene	ug/L (ppb)	50	<1	87	60-143
Naphthalene	ug/L (ppb)	50	8.9	108	44-164
1,2,3-Trichlorobenzene	ug/L (ppb)	50	<1	99	69-148

Date of Report: 09/13/16
Date Received: 09/02/16
Project: SOU_0811-005_ 20160902, F&BI 609055

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	50	90	91	25-158	1
Chloromethane	ug/L (ppb)	50	94	89	45-156	5
Vinyl chloride	ug/L (ppb)	50	103	97	50-154	6
Bromomethane	ug/L (ppb)	50	128	118	55-143	8
Chloroethane	ug/L (ppb)	50	121	116	58-146	4
Trichlorofluoromethane	ug/L (ppb)	250	106	104	50-150	2
Acetone	ug/L (ppb)	250	100	103	53-131	3
1,1-Dichloroethene	ug/L (ppb)	50	98	99	67-136	1
Hexane	ug/L (ppb)	50	99	101	57-137	2
Methylene chloride	ug/L (ppb)	50	101	102	39-148	1
Methyl t-butyl ether (MTBE)	ug/L (ppb)	50	93	96	64-147	3
trans-1,2-Dichloroethene	ug/L (ppb)	50	92	92	68-128	0
1,1-Dichloroethane	ug/L (ppb)	50	97	98	79-121	1
2,2-Dichloropropane	ug/L (ppb)	50	105	105	55-143	0
cis-1,2-Dichloroethene	ug/L (ppb)	50	90	90	80-123	0
Chloroform	ug/L (ppb)	50	92	93	80-121	1
2-Butanone (MEK)	ug/L (ppb)	250	102	103	57-149	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	50	92	91	73-132	1
1,1,1-Trichloroethane	ug/L (ppb)	50	88	90	83-130	2
1,1-Dichloropropene	ug/L (ppb)	50	91	91	77-129	0
Carbon tetrachloride	ug/L (ppb)	50	88	91	75-158	3
Benzene	ug/L (ppb)	50	92	92	69-134	0
Trichloroethene	ug/L (ppb)	50	87	87	80-120	0
1,2-Dichloropropane	ug/L (ppb)	50	97	98	77-123	1
Bromodichloromethane	ug/L (ppb)	50	92	93	81-133	1
Dibromomethane	ug/L (ppb)	50	93	93	82-125	0
4-Methyl-2-pentanone	ug/L (ppb)	250	90	92	65-138	2
cis-1,3-Dichloropropene	ug/L (ppb)	50	93	93	82-132	0
Toluene	ug/L (ppb)	50	95	95	72-122	0
trans-1,3-Dichloropropene	ug/L (ppb)	50	102	100	80-136	2
1,1,2-Trichloroethane	ug/L (ppb)	50	101	101	75-124	0
2-Hexanone	ug/L (ppb)	250	118	119	60-136	1
1,3-Dichloropropane	ug/L (ppb)	50	105	103	76-126	2
Tetrachloroethene	ug/L (ppb)	50	96	96	76-121	0
Dibromochloromethane	ug/L (ppb)	50	98	99	84-133	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	50	99	98	82-125	1
Chlorobenzene	ug/L (ppb)	50	97	96	83-114	1
Ethylbenzene	ug/L (ppb)	50	94	94	77-124	0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	50	94	94	84-127	0
m,p-Xylene	ug/L (ppb)	100	96	95	83-125	1
o-Xylene	ug/L (ppb)	50	93	92	81-121	1
Styrene	ug/L (ppb)	50	96	95	84-119	1
Isopropylbenzene	ug/L (ppb)	50	94	91	85-117	3
Bromoform	ug/L (ppb)	50	92	91	74-136	1
n-Propylbenzene	ug/L (ppb)	50	99	101	74-126	2
Bromobenzene	ug/L (ppb)	50	99	102	80-121	3
1,3,5-Trimethylbenzene	ug/L (ppb)	50	96	96	78-123	0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	50	105	108	66-126	3
1,2,3-Trichloropropane	ug/L (ppb)	50	107	109	67-124	2
2-Chlorotoluene	ug/L (ppb)	50	98	100	77-127	2
4-Chlorotoluene	ug/L (ppb)	50	96	97	78-128	1
tert-Butylbenzene	ug/L (ppb)	50	96	95	80-123	1
1,2,4-Trimethylbenzene	ug/L (ppb)	50	95	95	79-122	0
sec-Butylbenzene	ug/L (ppb)	50	94	93	80-125	1
p-Isopropyltoluene	ug/L (ppb)	50	95	93	81-123	2
1,3-Dichlorobenzene	ug/L (ppb)	50	98	98	85-116	0
1,4-Dichlorobenzene	ug/L (ppb)	50	97	96	84-121	1
1,2-Dichlorobenzene	ug/L (ppb)	50	99	99	85-116	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	50	109	110	57-141	1
1,2,4-Trichlorobenzene	ug/L (ppb)	50	97	97	72-130	0
Hexachlorobutadiene	ug/L (ppb)	50	85	84	53-141	1
Naphthalene	ug/L (ppb)	50	104	104	64-133	0
1,2,3-Trichlorobenzene	ug/L (ppb)	50	97	97	65-136	0

Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The 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.

609055

SAMPLE CHAIN OF CUSTODY

ME 09/03/16 V1 / AE3

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-005

REMARKS

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	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	MTCA 5 Metals			Notes
DB04-20160902	DB04	—	01 A-E	9/2/16	1215	H_2O	5				X		X			
DB05-20160902	DB05	—	02	9/2/16	1420	H_2O	5				X		X			

EJT 9/2/16

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: Clare Toch	Clare Tochilin	SoundEarth	9/2/16	1645
Received by:	Eric Young	F&B	9/2/16	1645
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

September 16, 2016

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the additional results from the testing of material submitted on September 2, 2016 from the SOU_ 0811-005_ 20160902, F&BI 609055 project. There are 6 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Clare Tochilin
SOU0916R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 2, 2016 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_ 0811-005_ 20160902, F&BI 609055project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
609055 -01	DB04-20160902
609055 -02	DB05-20160902

The samples were filtered at Friedman and Bruya on September 13, 2016 at 12:01. The data were flagged accordingly.

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	DB04-20160902 f	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_ 0811-005_ 20160902, F&BI 609055
Date Extracted:	09/13/16	Lab ID:	609055-01
Date Analyzed:	09/13/16	Data File:	609055-01.080
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.03
Cadmium	<1
Chromium	1.14
Lead	<1
Mercury	<1

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	DB05-20160902 f	Client:	SoundEarth Strategies
Date Received:	09/02/16	Project:	SOU_ 0811-005_ 20160902, F&BI 609055
Date Extracted:	09/13/16	Lab ID:	609055-02
Date Analyzed:	09/13/16	Data File:	609055-02.081
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.84
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank f	Client:	SoundEarth Strategies
Date Received:	Not Applicable	Project:	SOU_ 0811-005_ 20160902, F&BI 609055
Date Extracted:	09/13/16	Lab ID:	I6-603 mb
Date Analyzed:	09/14/16	Data File:	I6-603 mb.017
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1

Date of Report: 09/16/16
Date Received: 09/02/16
Project: SOU_ 0811-005_ 20160902, F&BI 609055

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

Laboratory Code: 609054-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	6.95	107	111	70-130	4
Cadmium	ug/L (ppb)	5	<1	96	100	70-130	4
Chromium	ug/L (ppb)	20	2.52	115	116	70-130	1
Lead	ug/L (ppb)	10	<1	80	81	70-130	1
Mercury	ug/L (ppb)	10	<1	87	89	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	88	85-115
Cadmium	ug/L (ppb)	5	104	85-115
Chromium	ug/L (ppb)	20	105	85-115
Lead	ug/L (ppb)	10	103	85-115
Mercury	ug/L (ppb)	10	96	85-115

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.

609053

SAMPLE CHAIN OF CUSTODY

ME 09/03/16 V1/ [illegible]

Send Report to: Rob Roberts; Clare Tochilin

Company: SoundEarth Strategies, Inc.

Address: 2811 Fairview Avenue E, Suite 2000

City, State, ZIP: Seattle, Washington 98102

Phone #: 206-306-1900 Fax #: 206-306-1907

SAMPLERS (signature): [signature]

PROJECT NAME/NO.	PO #
18th and Jackson Property	0811-006

REMARKS

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	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	Total 5 Metals	Dissolved 5 Metals		Notes
DB04-20160902	DB04	—	01A-E	9/2/16	1215	H_2O	5				X		X	⊗		⊗ - per CR 2 day 9/13/16 ME
DB05-20160902	DB05	—	02	9/2/16	1420	H_2O	5				X		X	⊗		

RJT 9/2/16

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]	Clare Tochilin	SoundEarth	9/2/16	1645
Received by:	[signature]	Eric Young	F&B	9/2/16	1645
Relinquished by:					
Received by:			Samples received at 4 °C		

FORMS\COC\COC.DOC

Excavation – Soil Laboratory Analytical Reports

Friedman & Bruya, Inc. #702117

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

February 10, 2017

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on February 8, 2017 from the SOU_ 0811-005_ 20170208, F&BI 702117 project. There are 7 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
c: Clare Tochilin
SOU0210R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 8, 2017 by Friedman & Bruya, Inc. from the SoundEarth Strategies 0811-005 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
702117 -01	EX01-WSW01-6
702117 -02	EX01-SSW01-6
702117 -03	EX01-NSW01-6
702117 -04	EX01-B01-8
702117 -05	EX01-ESW01-6
702117 -06	EX01-B02-8
702117 -07	SP01-01
702117 -08	SP01-02
702117 -09	SP01-03
702117 -10	EX02-B01-5
702117 -11	EX02-SSW01-4
702117 -12	EX02-ESW01-4
702117 -13	EX02-B02-5
702117 -14	EX02-WSW01-4
702117 -15	EX02-NSW01-4
702117 -16	SP02-01
702117 -17	SP02-02
702117 -18	SP02-03
702117 -19	SP03-01
702117 -20	SP03-02
702117 -21	EX03-B01-4
702117 -22	EX03-B02-4
702117 -23	EX03-NSW01-2
702117 -24	EX03-WSW01-2
702117 -25	EX03-ESW01-2
702117 -26	EX03-SSW01-2
702117 -27	SP03-03

All quality control requirements were acceptable.

Date of Report: 02/10/17
Date Received: 02/08/17
Project: SOU_ 0811-005_ 20170208, F&BI 702117
Date Extracted: 02/08/17
Date Analyzed: 02/08/17

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 56-165)
EX01-WSW01-6 702117-01	<50	<250	89
EX01-SSW01-6 702117-02	<50	<250	96
EX01-NSW01-6 702117-03	<50	<250	96
EX01-B01-8 702117-04	<50	<250	97
EX01-ESW01-6 702117-05	<50	<250	87
EX01-B02-8 702117-06	<50	<250	88
SP01-01 702117-07	<50	<250	88
SP01-02 702117-08	<50	<250	93
SP01-03 702117-09	<50	500	93
EX02-B01-5 702117-10	<50	<250	94
EX02-SSW01-4 702117-11	<50	<250	95

Date of Report: 02/10/17
Date Received: 02/08/17
Project: SOU_ 0811-005_ 20170208, F&BI 702117
Date Extracted: 02/08/17
Date Analyzed: 02/08/17

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 56-165)
EX02-ESW01-4 702117-12	<50	<250	95
EX02-B02-5 702117-13	<50	<250	94
EX02-WSW01-4 702117-14	<50	<250	95
EX02-NSW01-4 702117-15	<50	<250	92
SP02-01 702117-16	<50	<250	93
SP02-02 702117-17	<50	<250	95
SP02-03 702117-18	<50	<250	95
SP03-01 702117-19	1,900 x	16,000	89
SP03-02 702117-20	83 x	580	95
EX03-B01-4 702117-21	<50	<250	100
EX03-B02-4 702117-22	500 x	3,300	90

Date of Report: 02/10/17
Date Received: 02/08/17
Project: SOU_ 0811-005_ 20170208, F&BI 702117
Date Extracted: 02/08/17
Date Analyzed: 02/08/17

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 56-165)
EX03-NSW01-2 702117-23	<50	<250	106
EX03-WSW01-2 702117-24	59 x	720	106
EX03-ESW01-2 702117-25	<50	<250	101
EX03-SSW01-2 702117-26	<50	<250	101
SP03-03 702117-27	3,300 x	12,000	83
Method Blank 07-284 MB	<50	<250	96
Method Blank 07-282 MB	<50	<250	112

Date of Report: 02/10/17
Date Received: 02/08/17
Project: SOU_ 0811-005_ 20170208, F&BI 702117

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

Laboratory Code: 702117-01 (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	104	105	73-135	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	104	74-139

Date of Report: 02/10/17
Date Received: 02/08/17
Project: SOU_ 0811-005_ 20170208, F&BI 702117

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

Laboratory Code: 702116-04 (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	98	63-146	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	92	79-144

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.

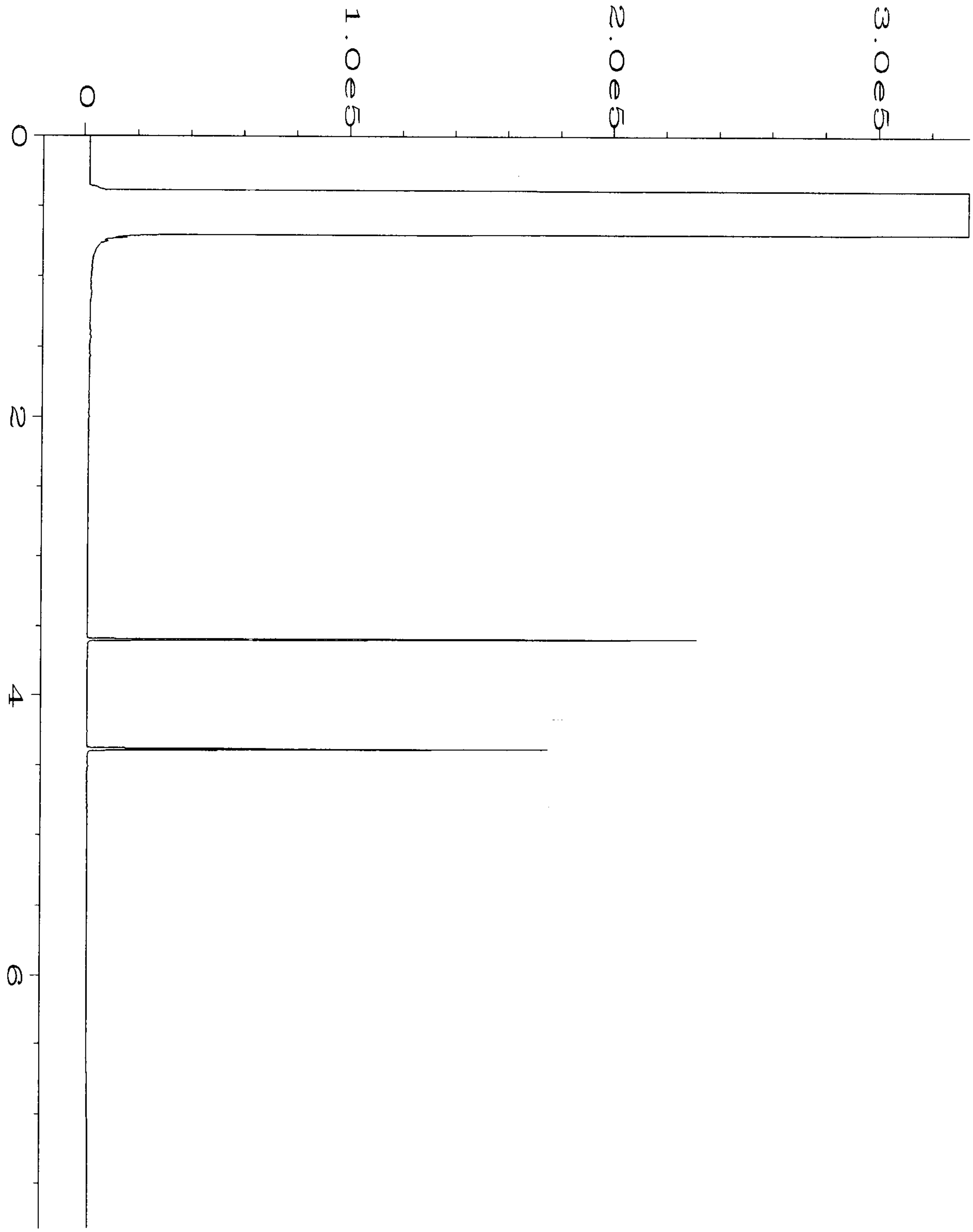
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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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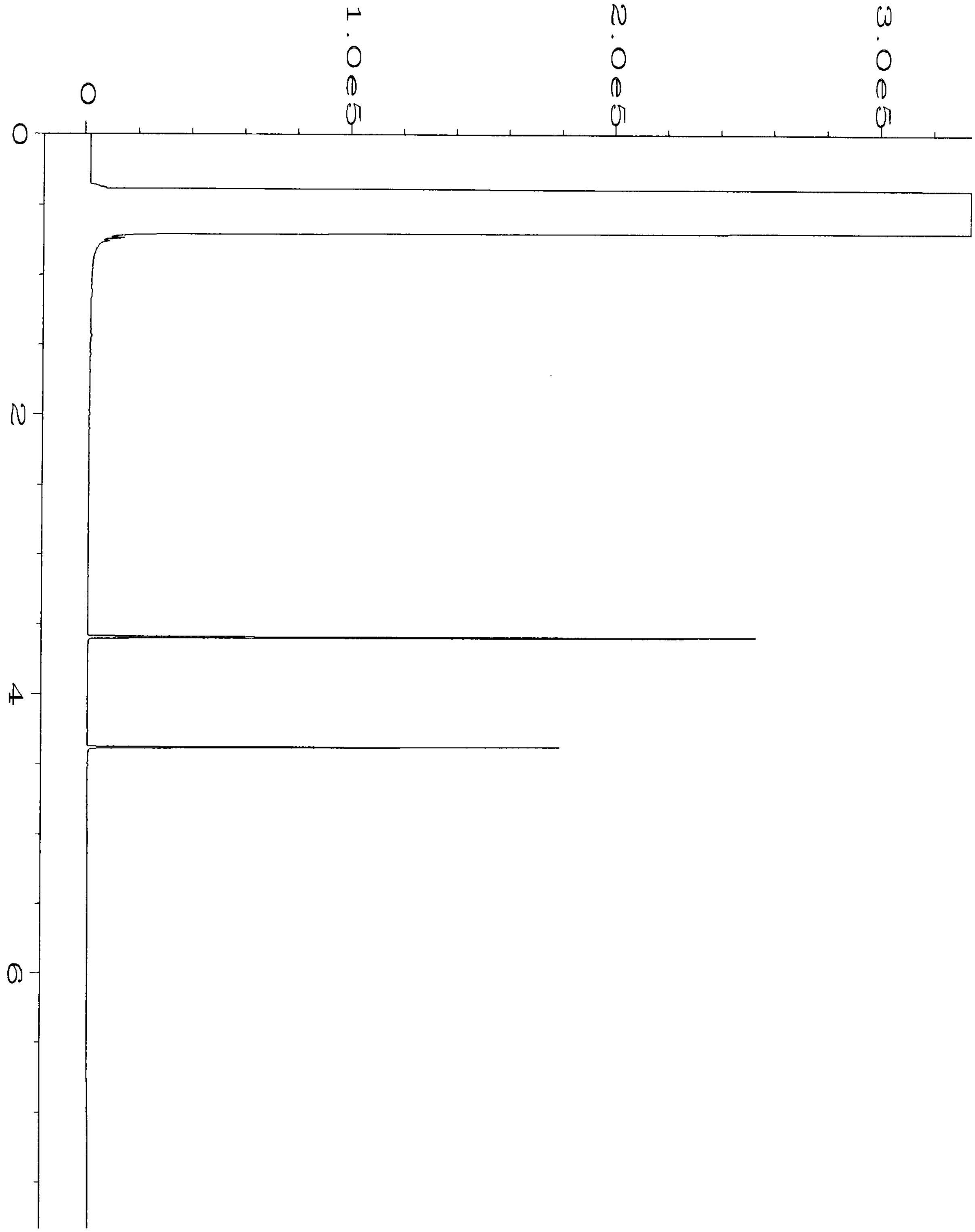
Report Created on:	09 Feb 17	10:43 AM	Analysis Method	:	DX.MTH



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Sample Name	: 702117-02	Injection Number	: 1
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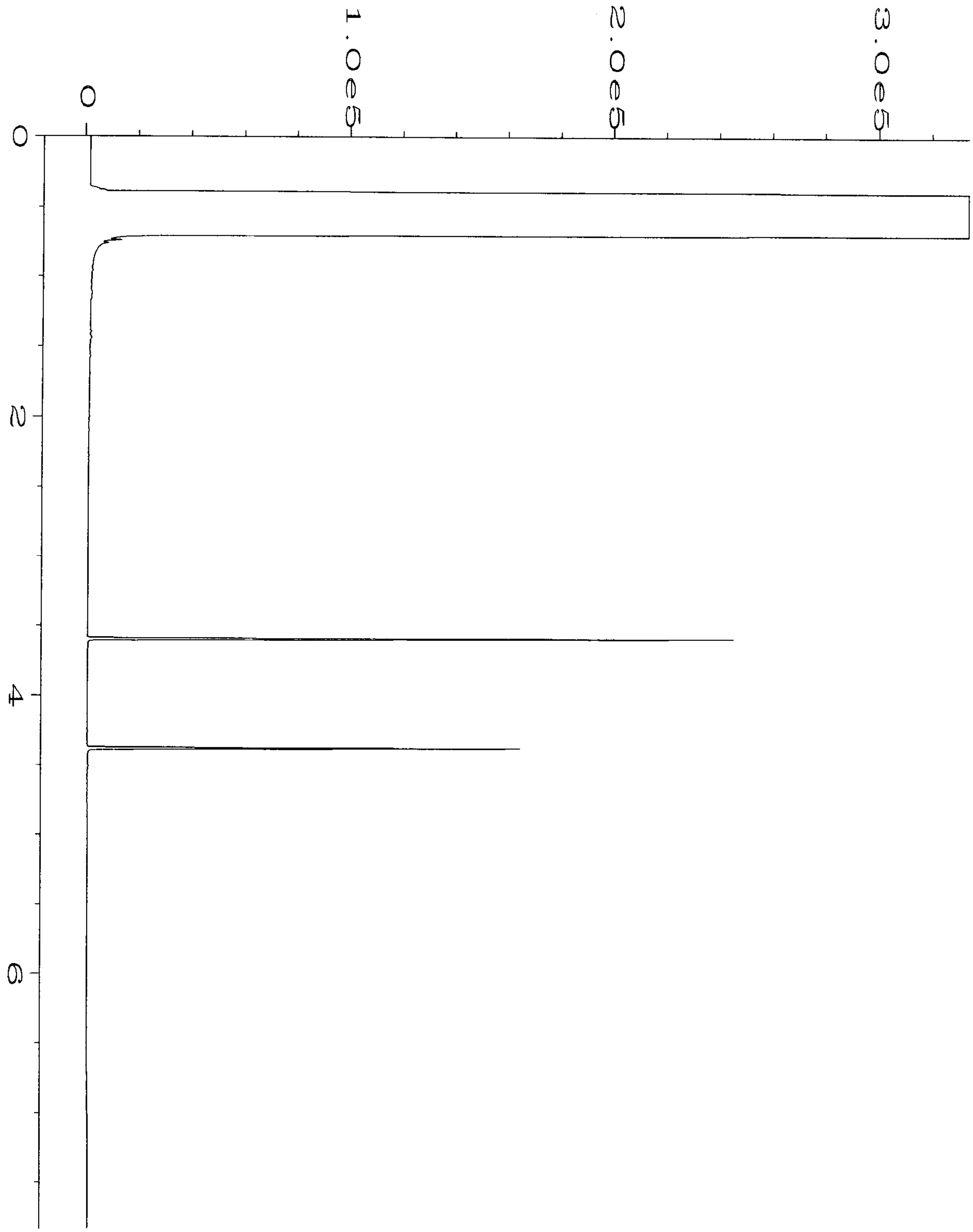
Report Created on:	09 Feb 17 10:43 AM	Analysis Method	: DX.MTH



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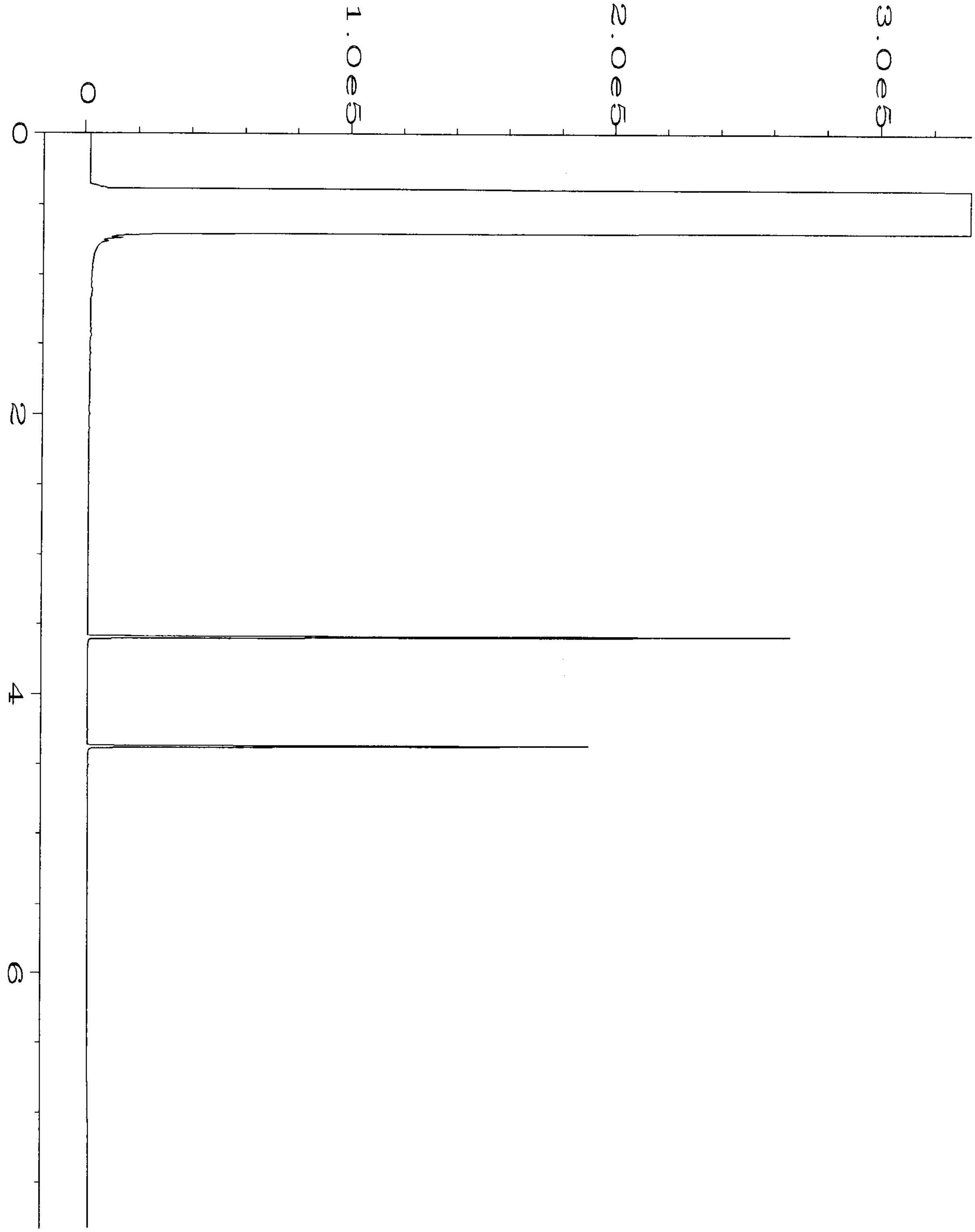
Instrument	: GC#4	Vial Number	:	26
Sample Name	: 702117-03	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	5
Acquired on	: 08 Feb 17 04:18 PM	Instrument Method:		DX.MTH
Report Created on:	09 Feb 17 10:44 AM	Analysis Method	:	DX.MTH



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Instrument	: GC#4	Vial Number	:	27
Sample Name	: 702117-04	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	5
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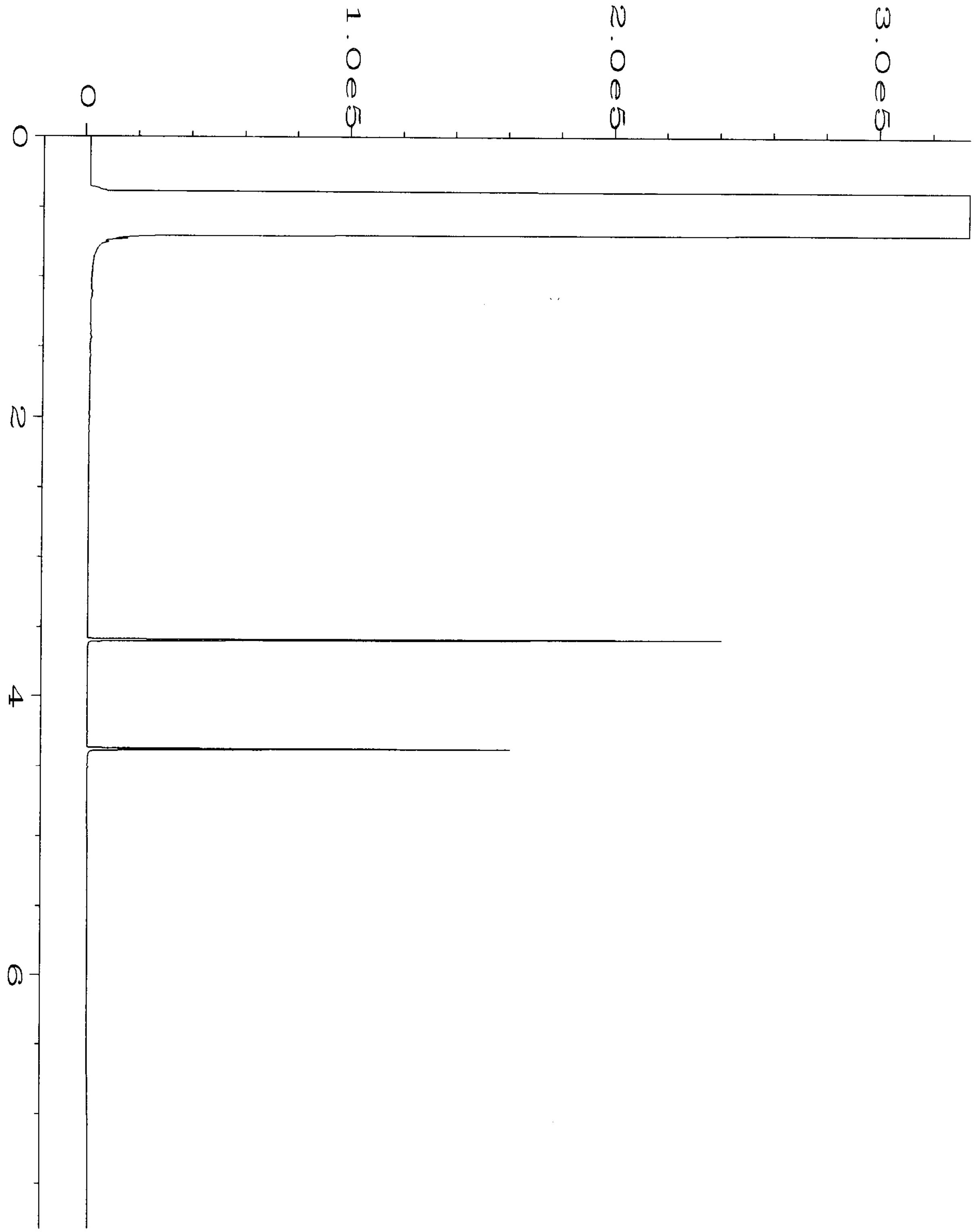
Report Created on:	09 Feb 17 10:44 AM	Analysis Method	:	DX.MTH



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Instrument	:	GC#4	Vial Number	:	28
Sample Name	:	702117-05	Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	5
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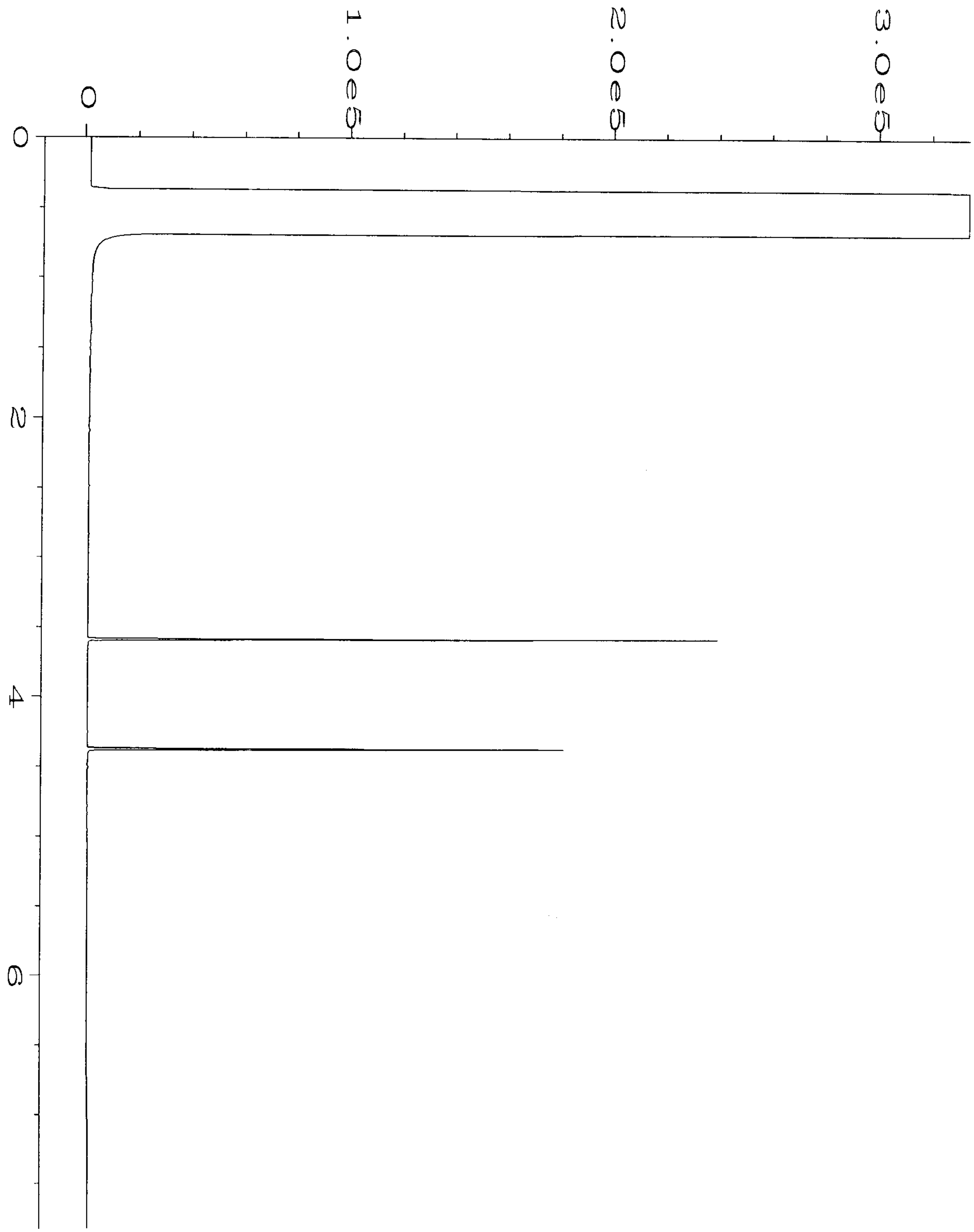
Report Created on:		09 Feb 17 10:44 AM	Analysis Method	:	DX.MTH



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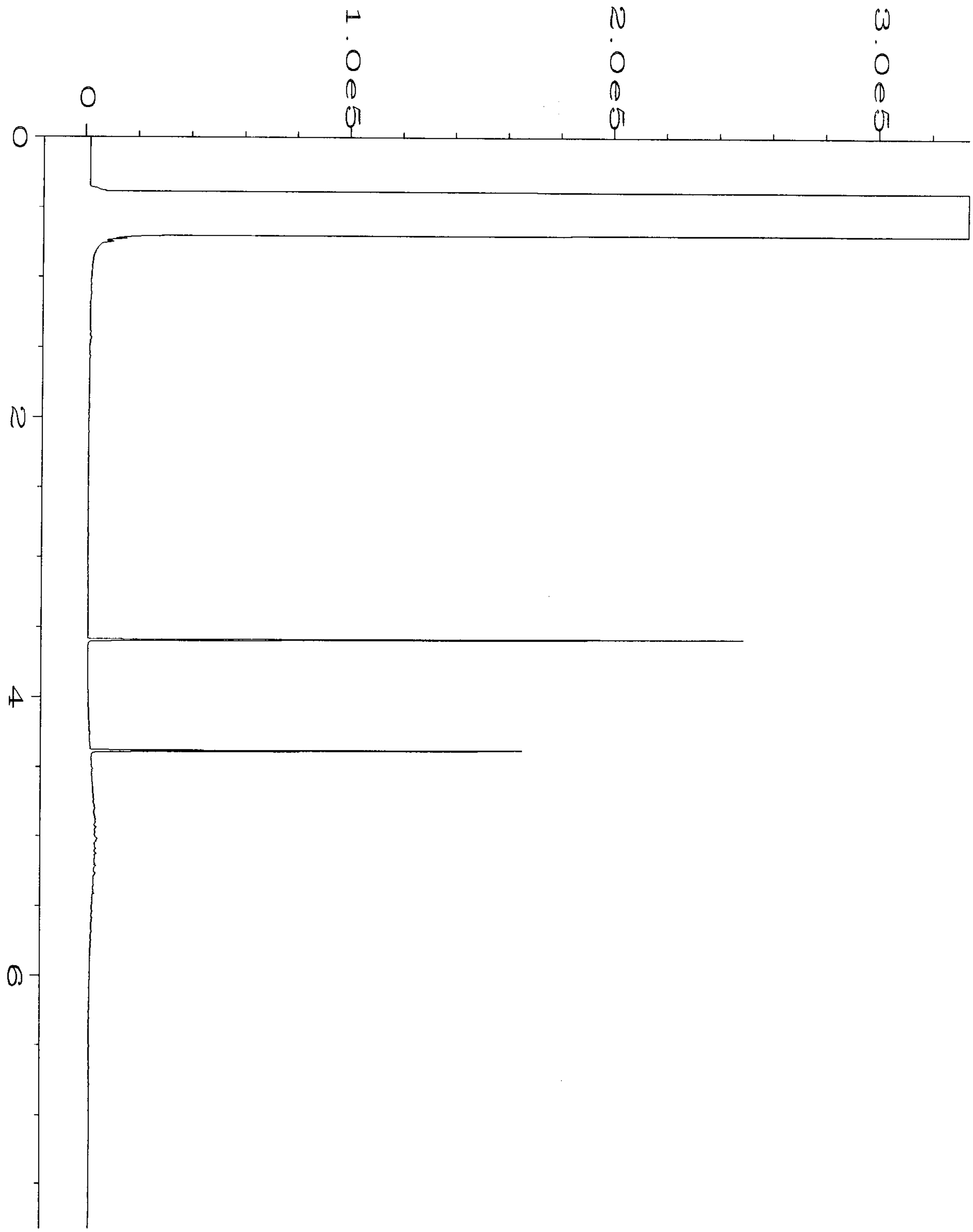
Operator : mwdl
Instrument : GC#4
Sample Name : 702117-06
Run Time Bar Code:
Acquired on : 08 Feb 17 04:54 PM
Report Created on: 09 Feb 17 10:44 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



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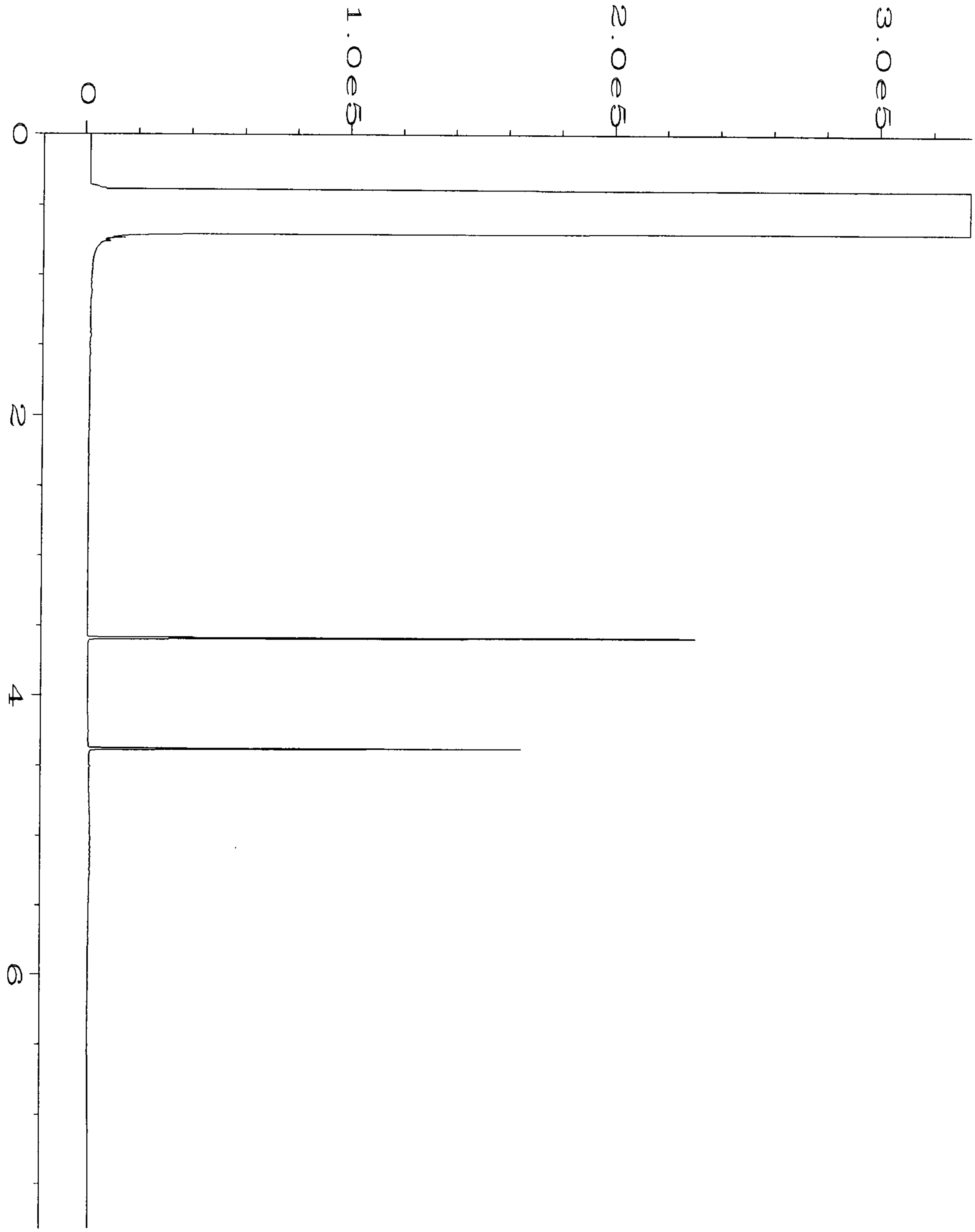
Operator   : mwdl
Instrument   : GC#4
Sample Name   : 702117-07
Run Time Bar Code:
Acquired on   : 08 Feb 17   05:04 PM
Report Created on: 09 Feb 17   10:44 AM

Page Number   : 1
Vial Number   : 30
Injection Number : 1
Sequence Line   : 5
Instrument Method: DX.MTH
Analysis Method   : DX.MTH



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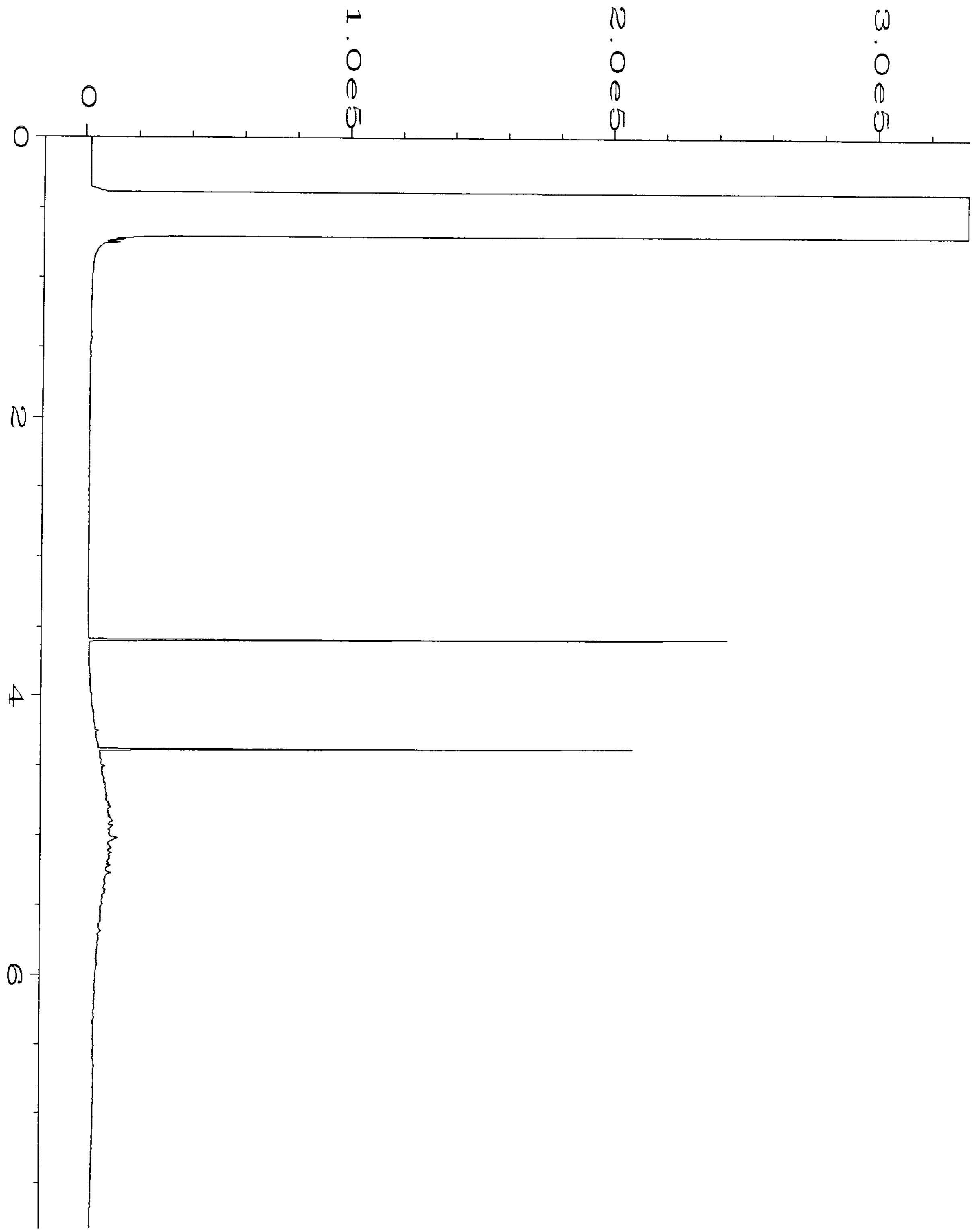
Operator : mwdl
Instrument : GC#4
Sample Name : 702117-08
Run Time Bar Code:
Acquired on : 08 Feb 17 05:16 PM
Report Created on: 09 Feb 17 10:44 AM

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



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Sample Name	: 702117-09		Injection Number	: 1
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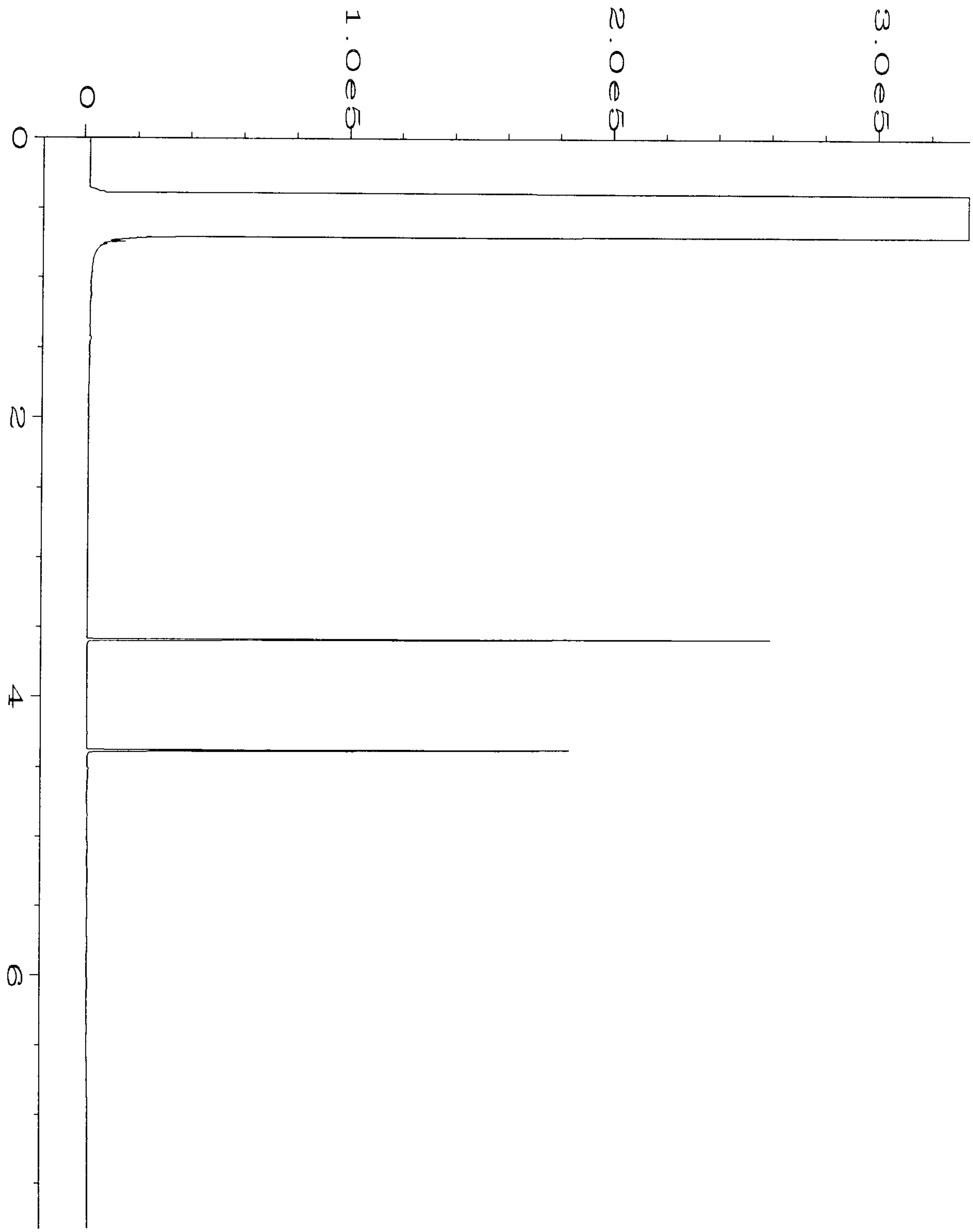
Report Created on:	09 Feb 17	10:45 AM	Analysis Method	: DX.MTH



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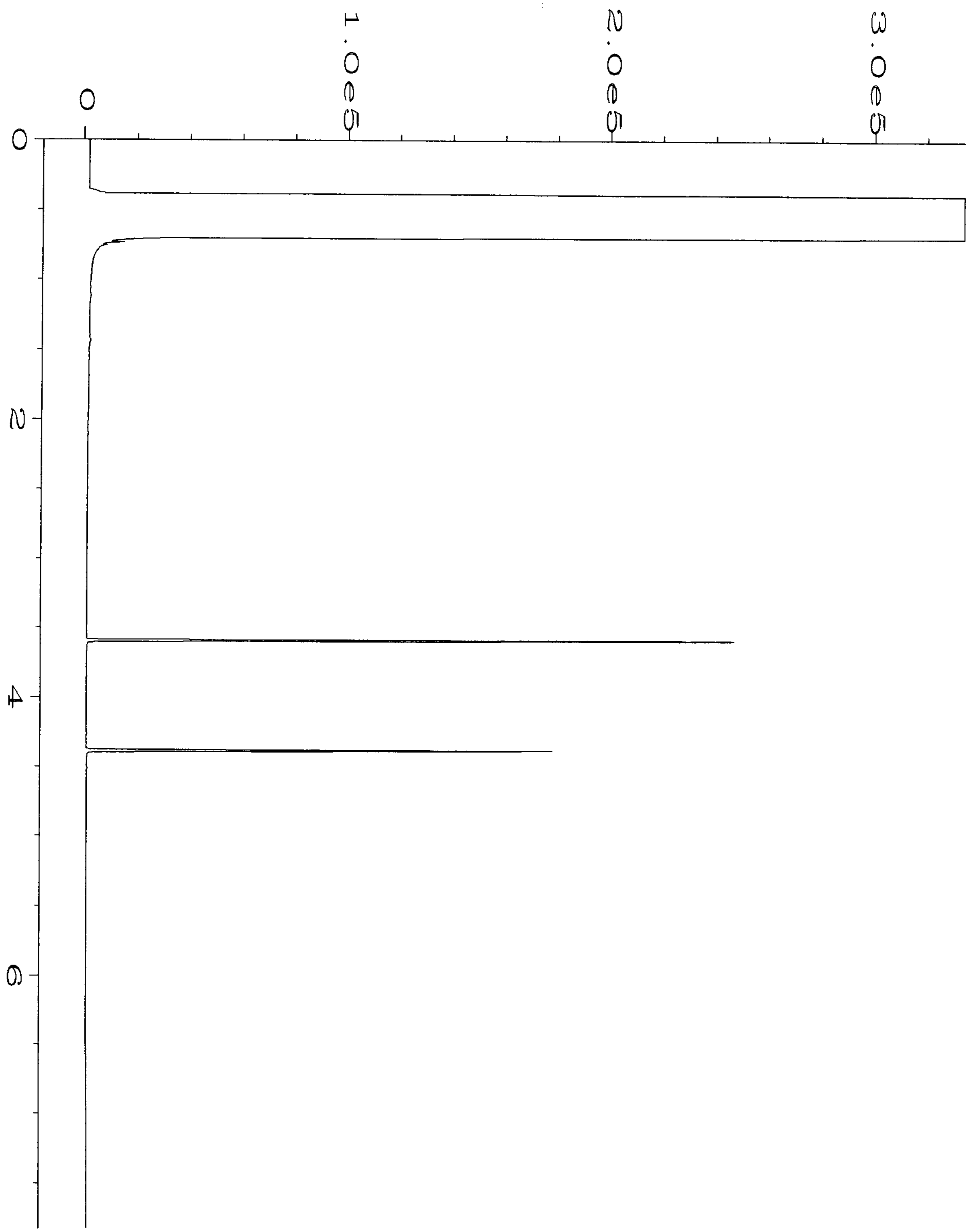
Operator	: mwdl		Page Number	:	1
Instrument	: GC#4		Vial Number	:	33
Sample Name	: 702117-10		Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	7
Acquired on	: 08 Feb 17	06:04 PM	Instrument Method:		DX.MTH
Report Created on:	09 Feb 17	10:45 AM	Analysis Method	:	DX.MTH



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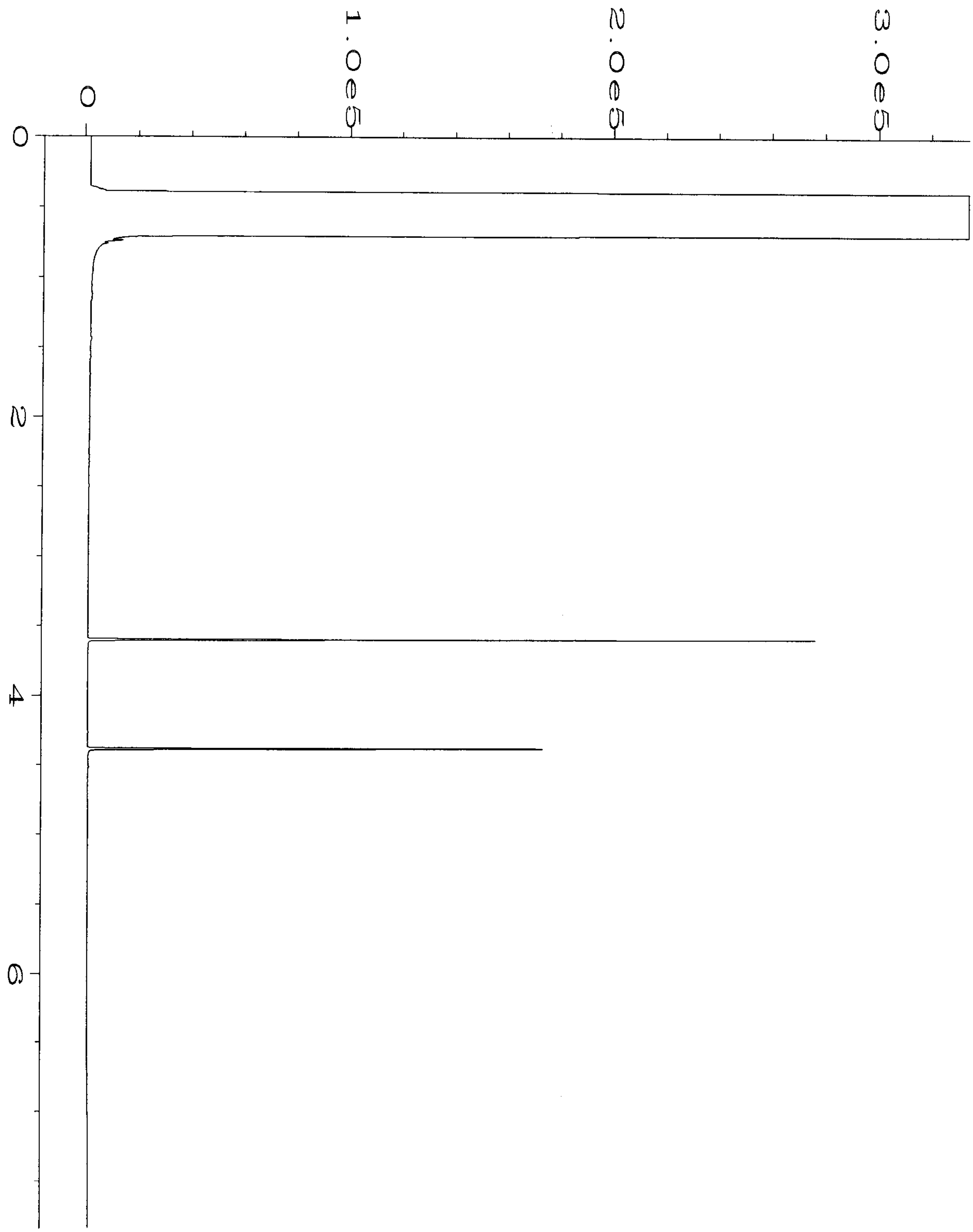
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 34
Sample Name	: 702117-11	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 Feb 17 06:16 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:45 AM	Analysis Method	: DX.MTH



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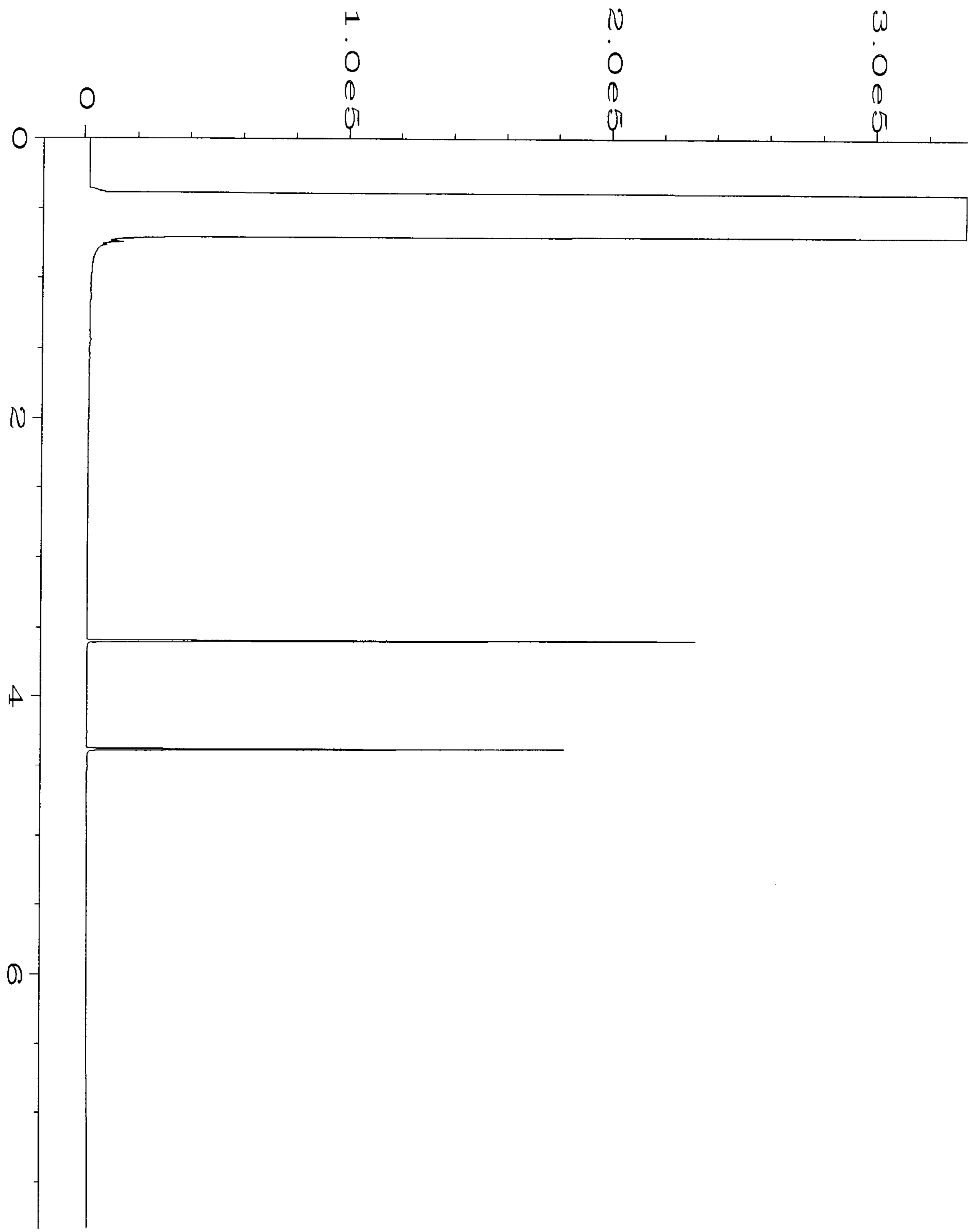
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 35
Sample Name	: 702117-12	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 Feb 17 06:28 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:45 AM	Analysis Method	: DX.MTH



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Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 36
Sample Name	: 702117-13	Injection Number	: 1
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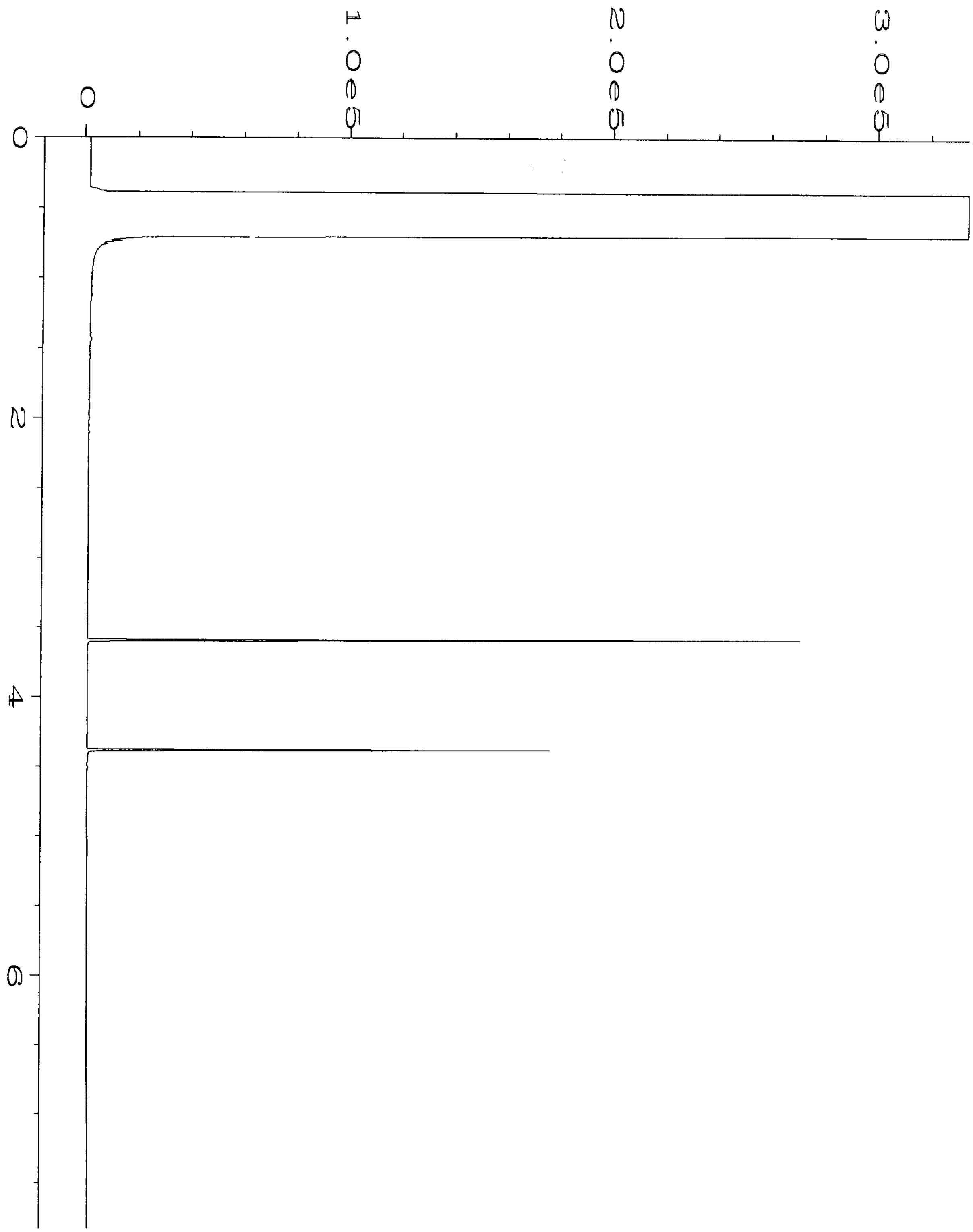

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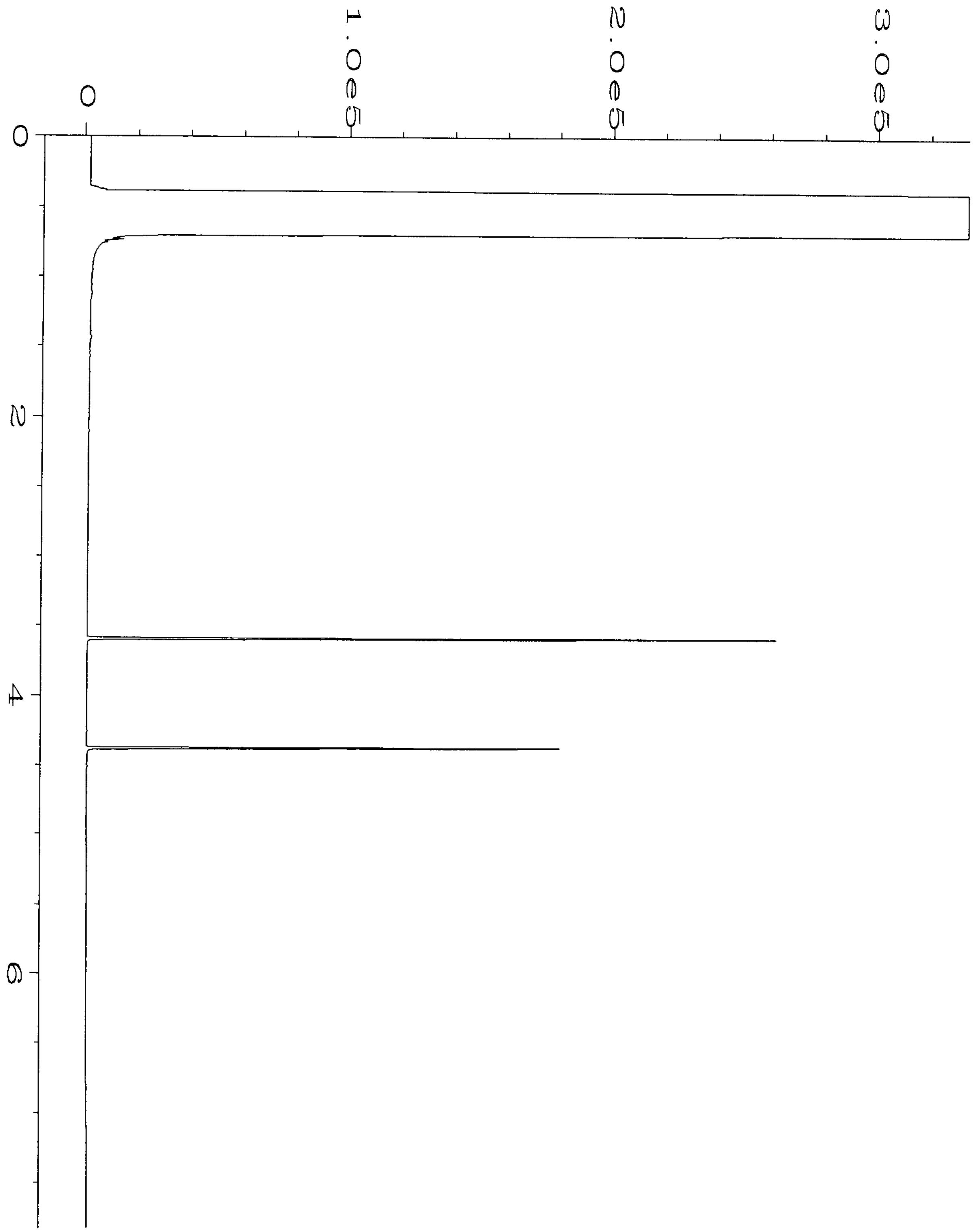
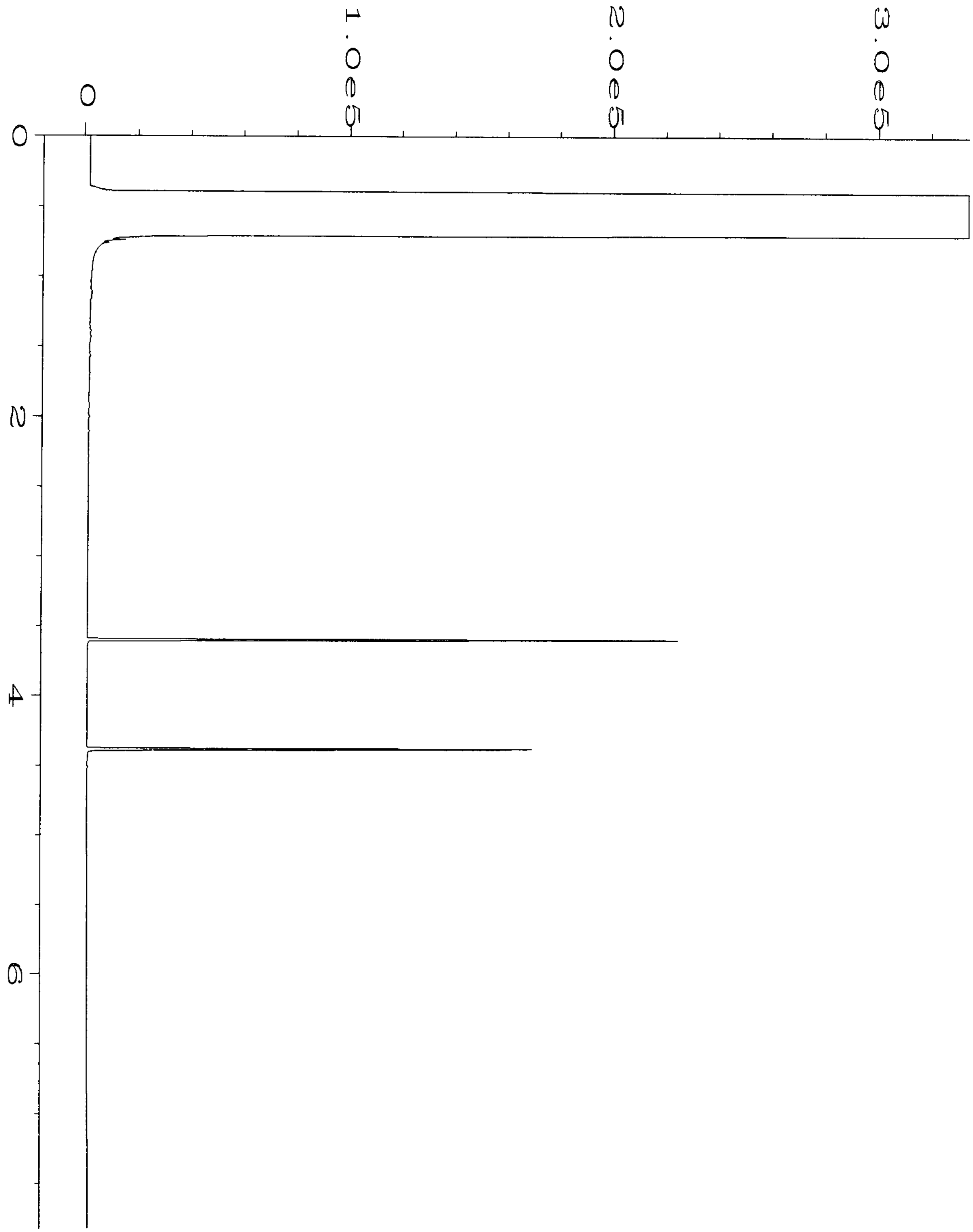
Instrument	: GC#4	Vial Number	:	37
Sample Name	: 702117-14	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	7
Acquired on	: 08 Feb 17 06:52 PM	Instrument Method:		DX.MTH
Report Created on:	09 Feb 17 10:45 AM	Analysis Method	:	DX.MTH



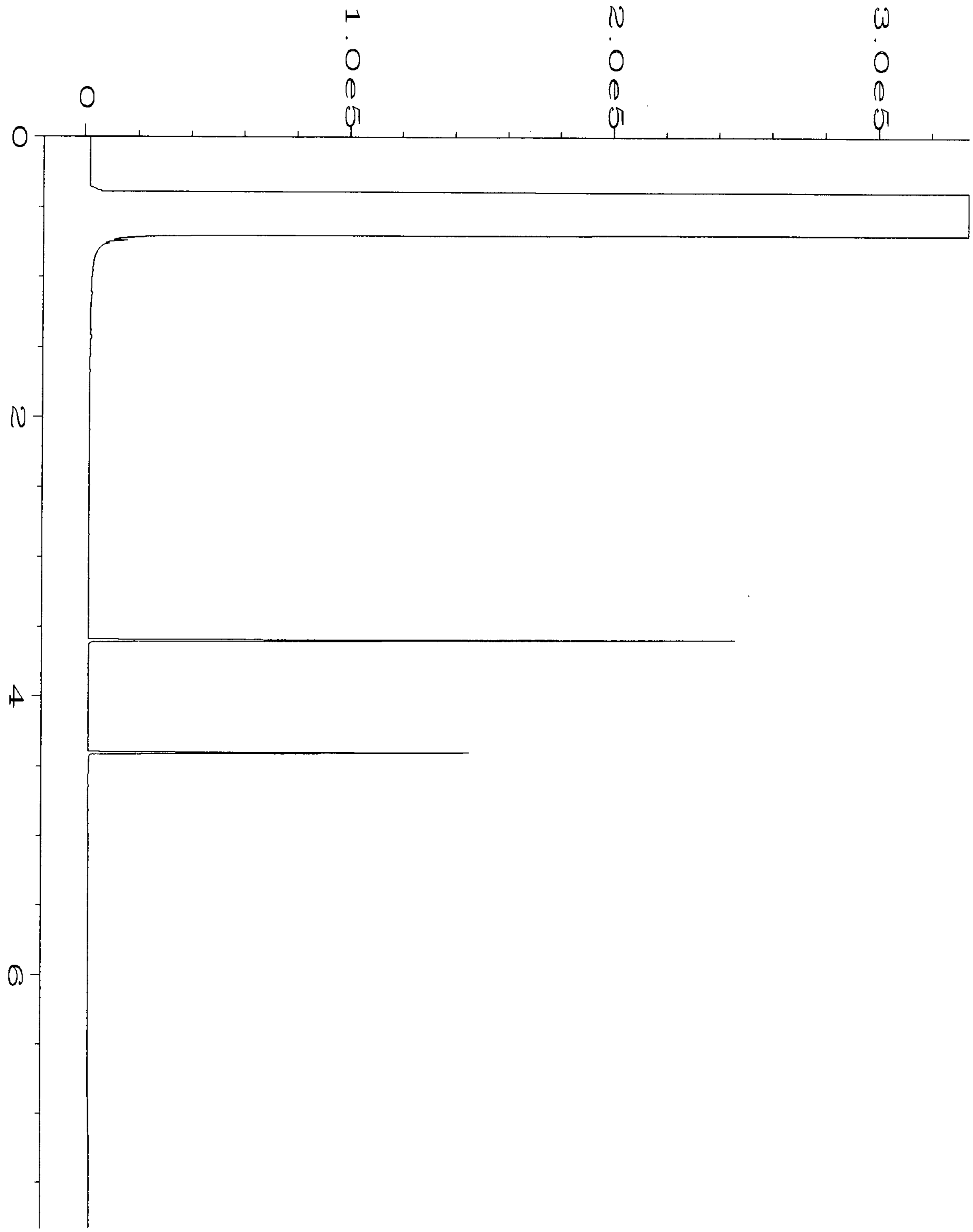
Data File Name : C:\HPCHEM\4\DATA\02-08-17\038F0701.D
Operator : mwdl
Instrument : GC#4
Sample Name : 702117-15
Run Time Bar Code:
Acquired on : 08 Feb 17 07:04 PM
Report Created on: 09 Feb 17 10:45 AM

Page Number : 1
Vial Number : 38
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH

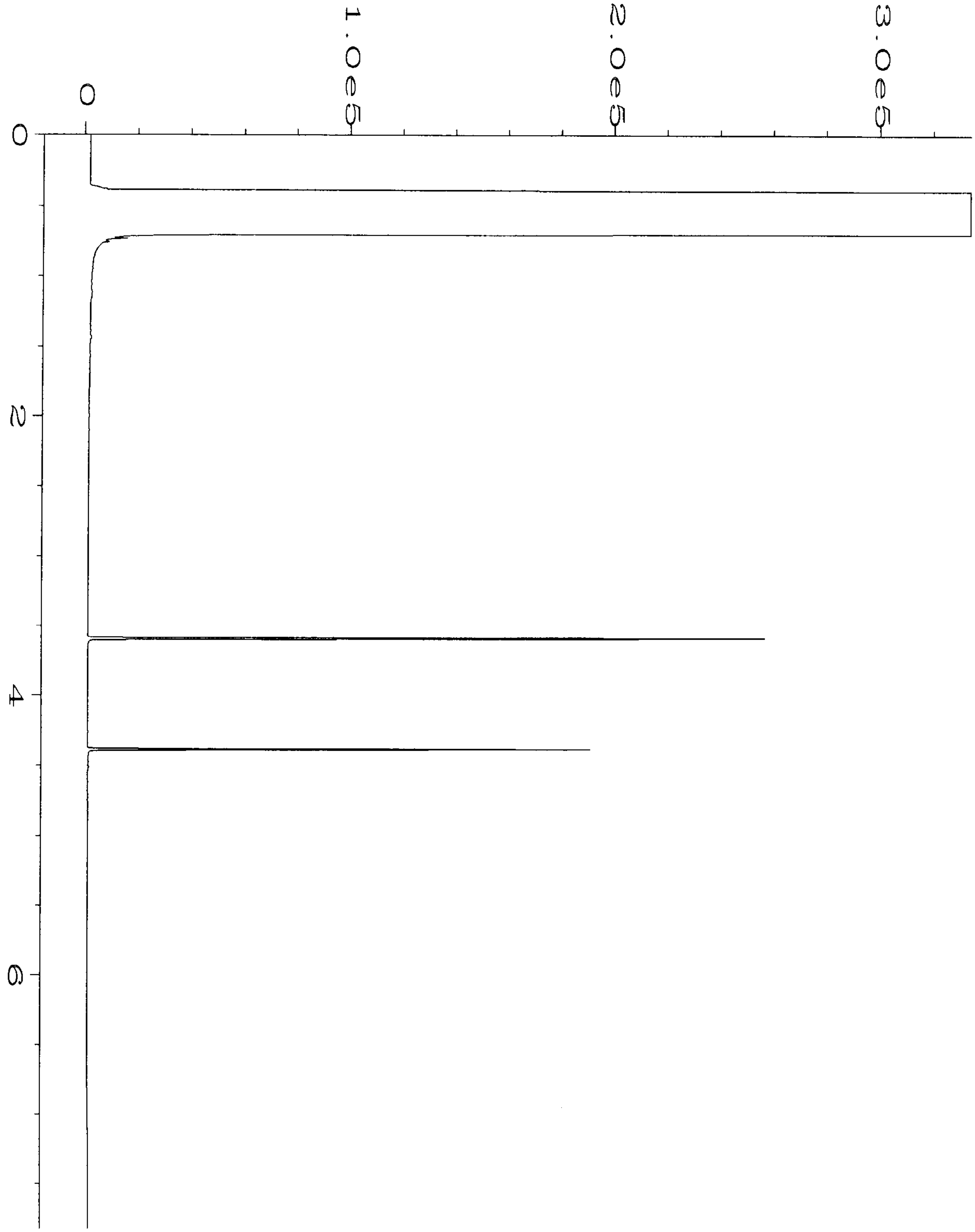


Data File Name : C:\HPCHEM\4\DATA\02-08-17\039F0701.D

Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 39
Sample Name	: 702117-16	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 Feb 17 07:16 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:45 AM	Analysis Method	: DX.MTH

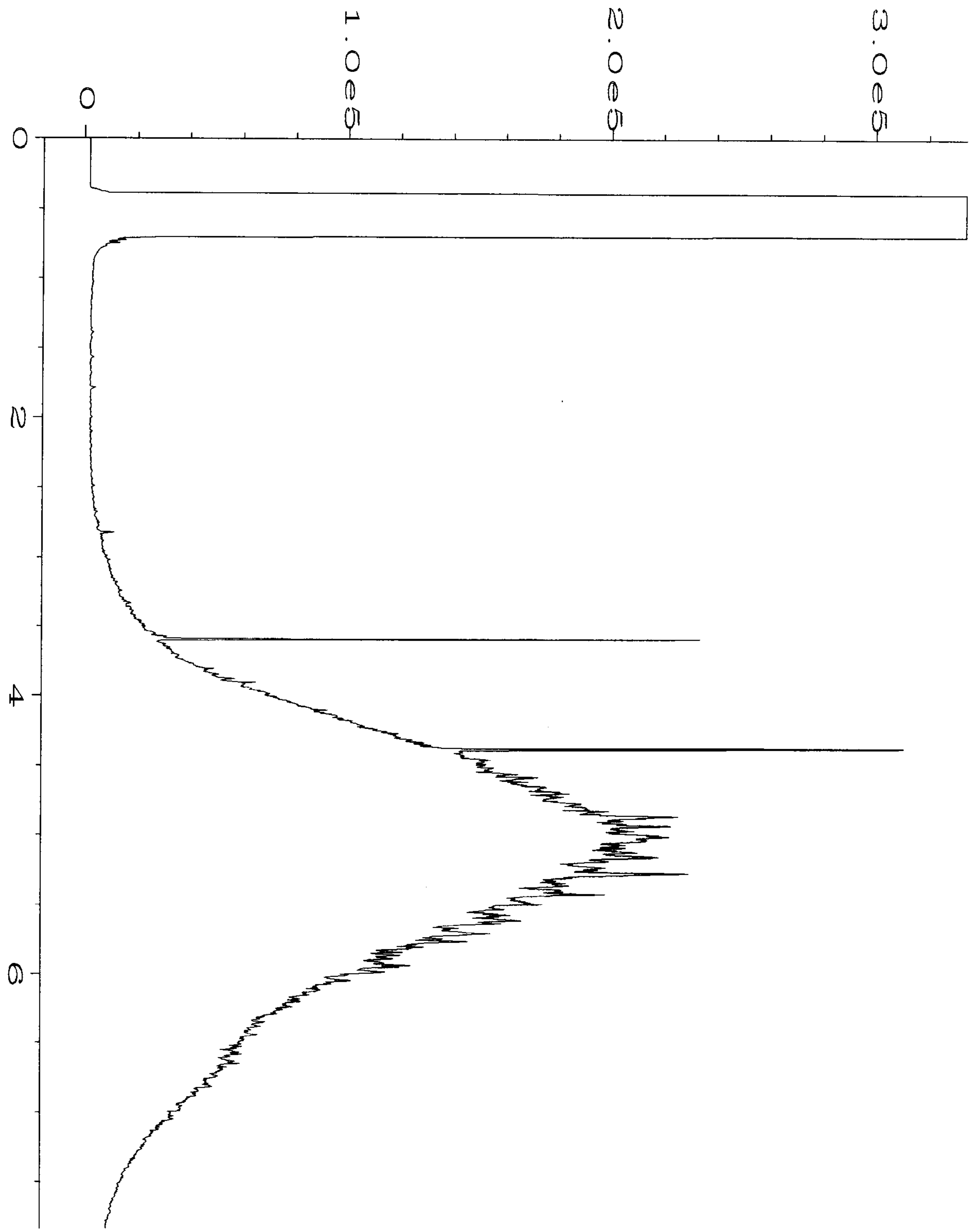


Data File Name	: C:\HPCHEM\4\DATA\02-08-17\040F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC#4	Vial Number	: 40
Sample Name	: 702117-17	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 Feb 17 09:39 PM	Instrument Method	: DX.MTH
Report Created on:	09 Feb 17 10:46 AM	Analysis Method	: DX.MTH

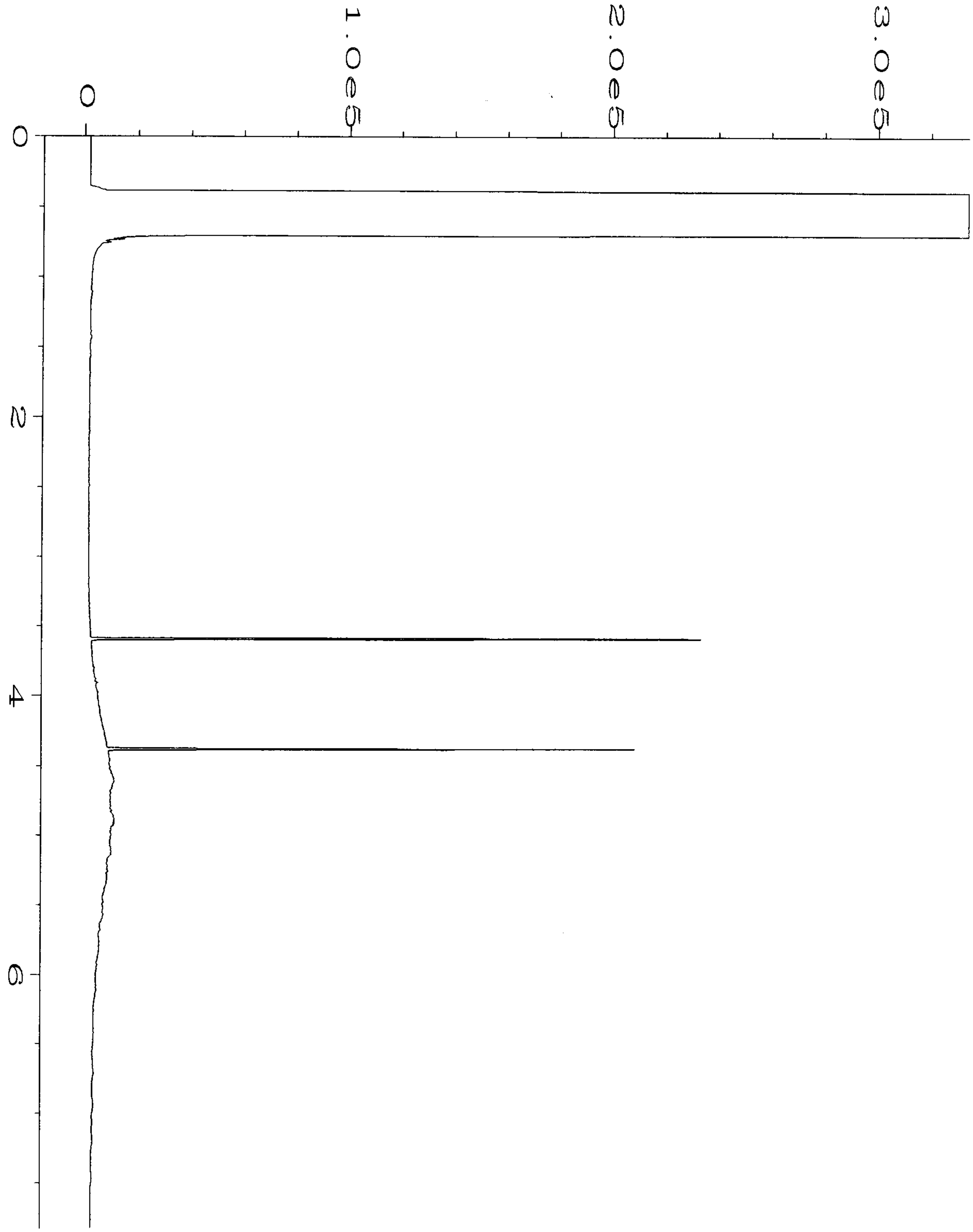


Data File Name : C:\HPCHEM\4\DATA\02-08-17\041F0701.D
Operator : mwdl
Instrument : GC#4
Sample Name : 702117-18
Run Time Bar Code:
Acquired on : 08 Feb 17 09:49 PM
Report Created on: 09 Feb 17 10:46 AM

Page Number : 1
Vial Number : 41
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\4\DATA\02-08-17\042F0701.D				
Operator	: mwdl		Page Number	:	1
Instrument	: GC#4		Vial Number	:	42
Sample Name	: 702117-19		Injection Number	:	1
Run Time Bar Code:			Sequence Line	:	7
Acquired on	: 08 Feb 17	10:01 PM	Instrument Method:		DX.MTH
Report Created on:	09 Feb 17	10:46 AM	Analysis Method	:	DX.MTH

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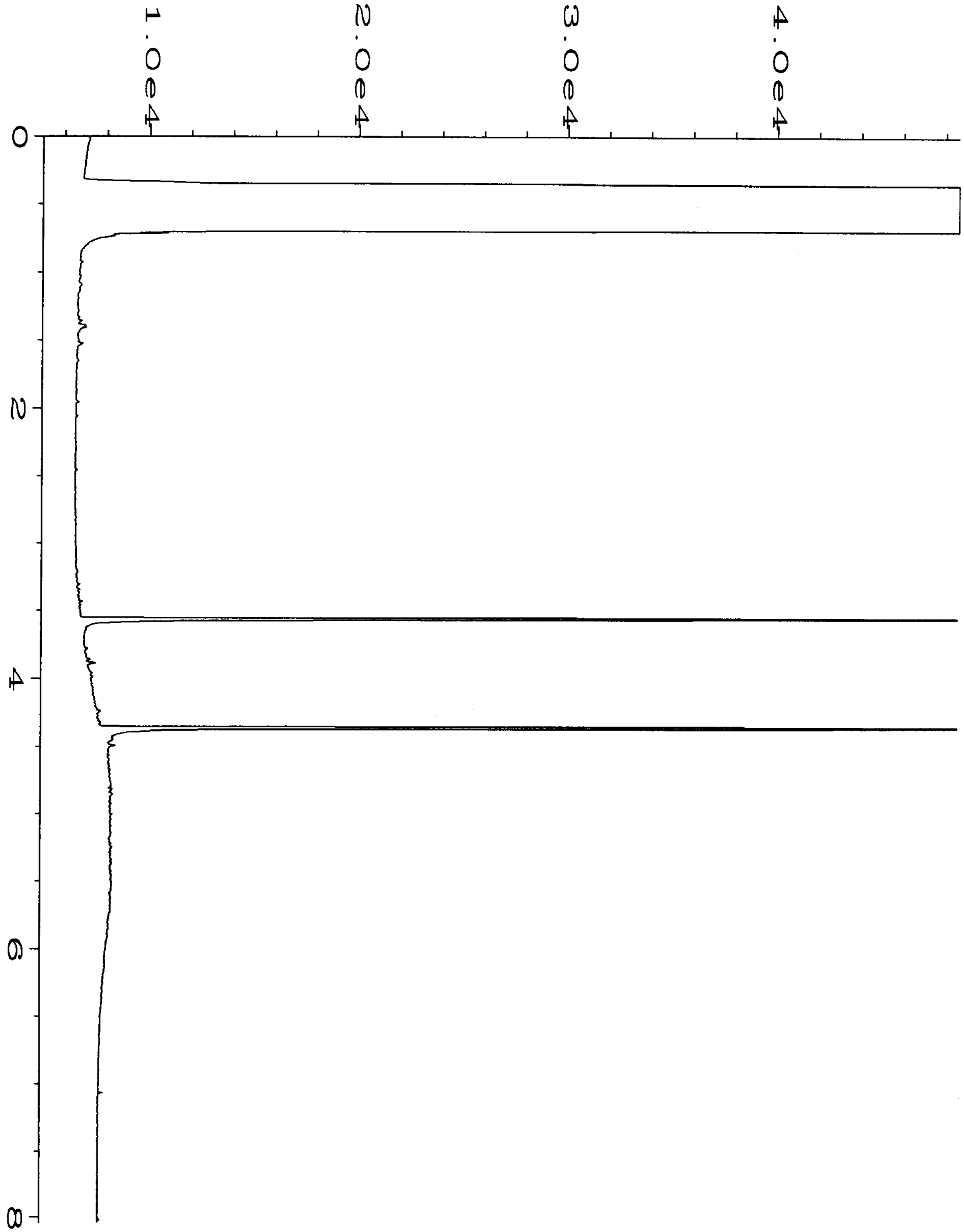
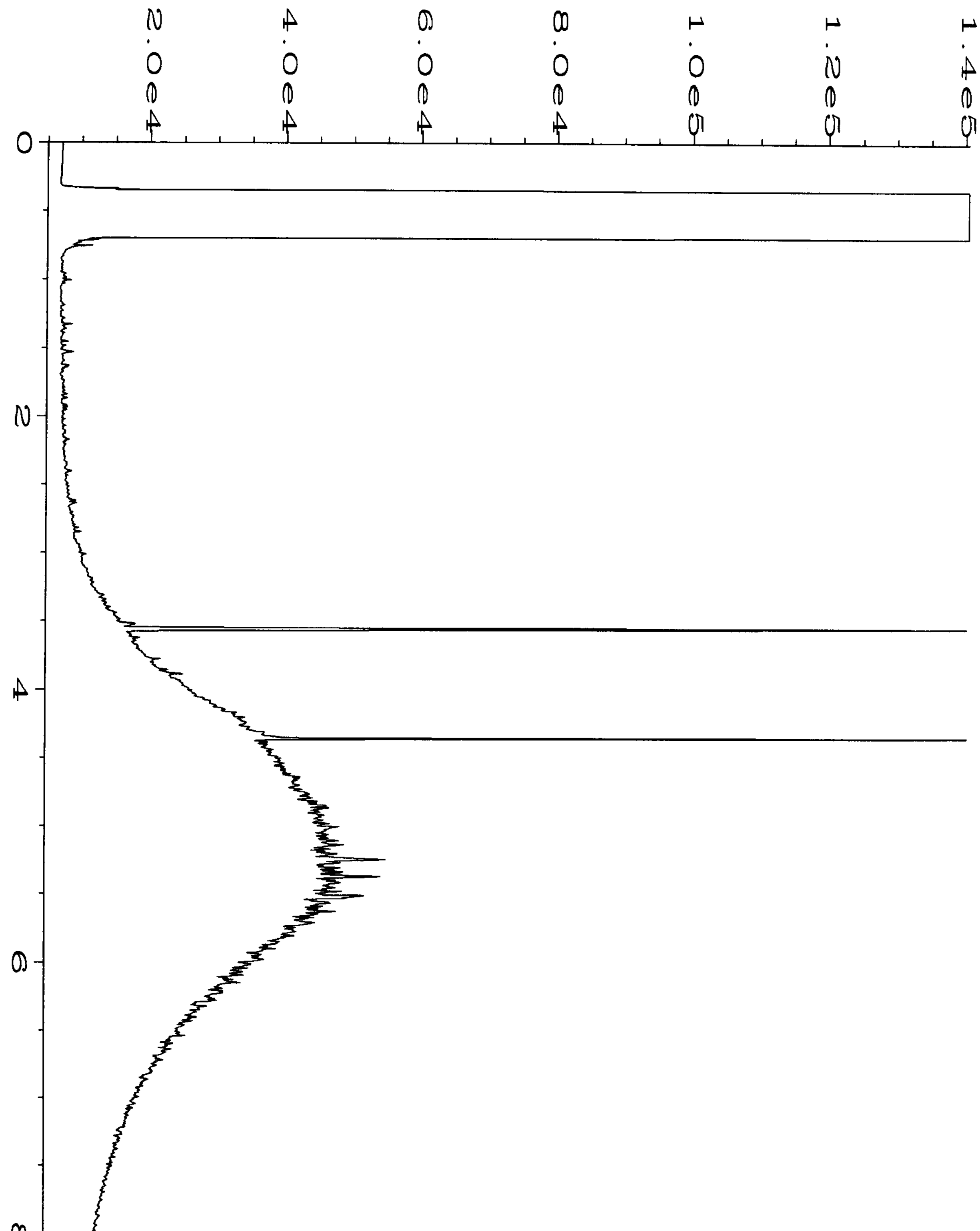
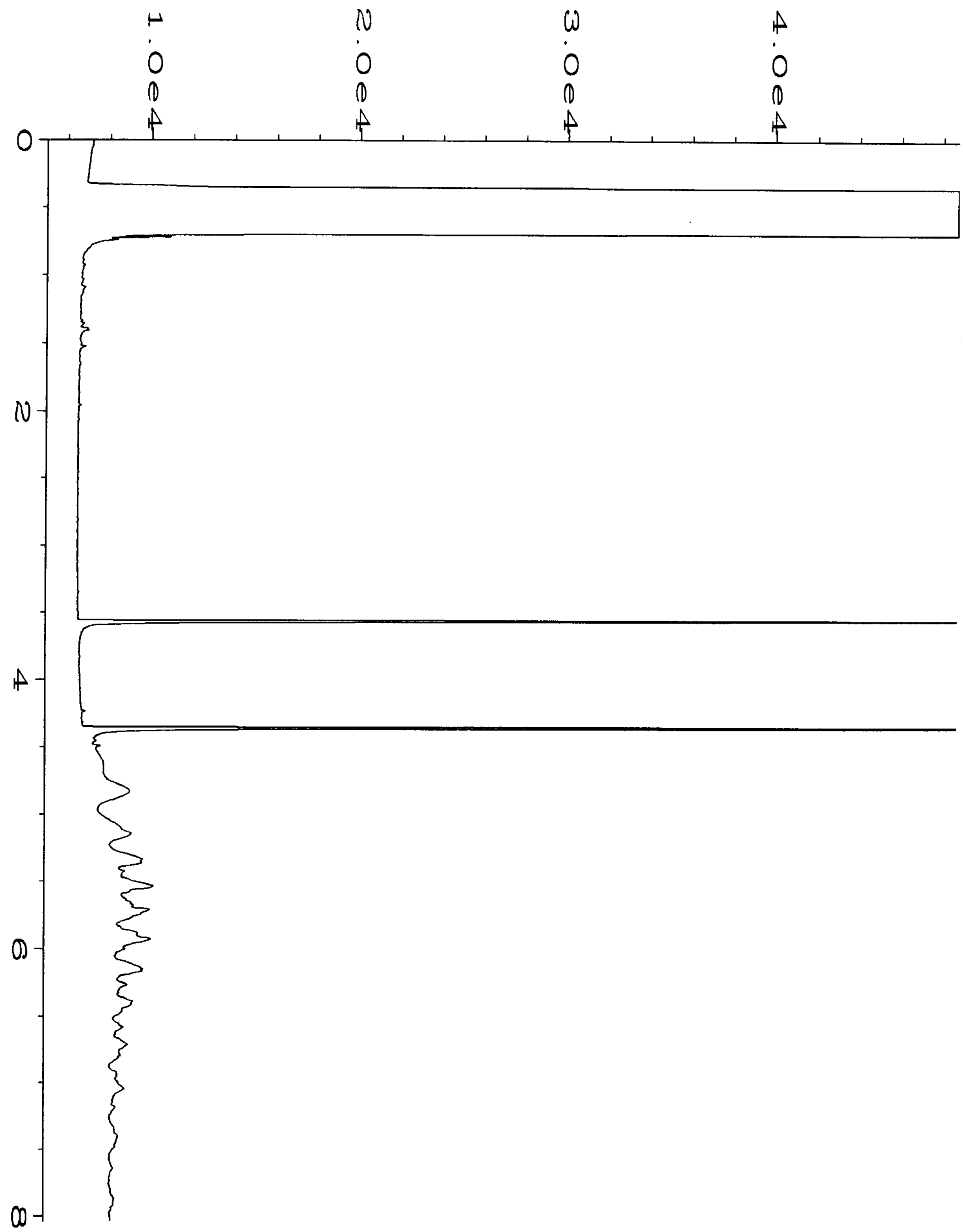
Data File Name    : C:\HPCHEM\4\DATA\02-08-17\043F0701.D
Operator          : mwdl                          Page Number        : 1
Instrument        : GC#4                          Vial Number        : 43
Sample Name       : 702117-20                     Injection Number   : 1
Run Time Bar Code:                                Sequence Line      : 7
Acquired on       : 08 Feb 17   10:13 PM          Instrument Method: DX.MTH
Report Created on: 09 Feb 17   10:46 AM           Analysis Method    : DX.MTH
```



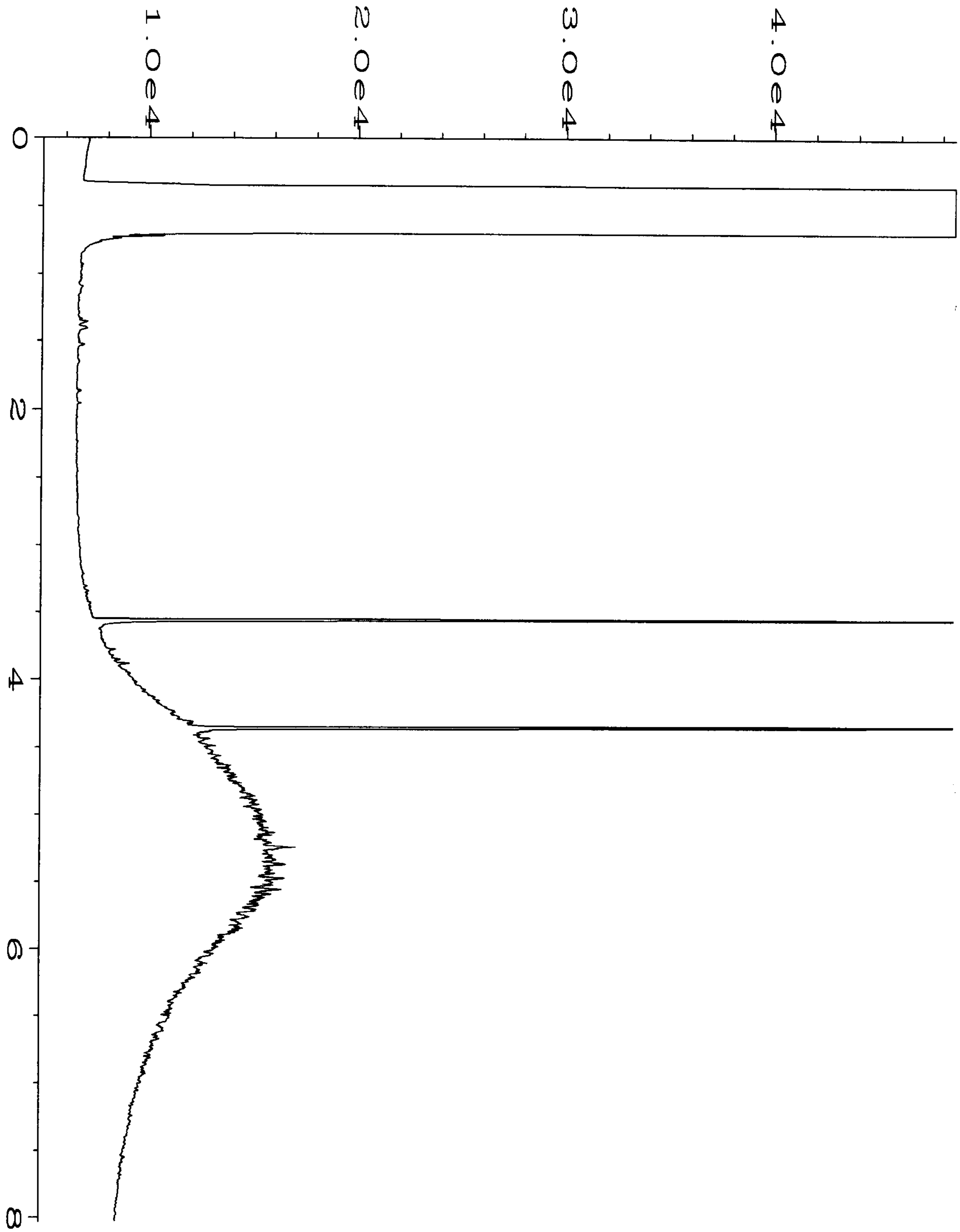
Data File Name	: C:\HPCHEM\1\DATA\02-08-17\049F1001.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 49
Sample Name	: 702117-21	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 08 Feb 17 07:38 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:52 AM	Analysis Method	: DX1.MTH



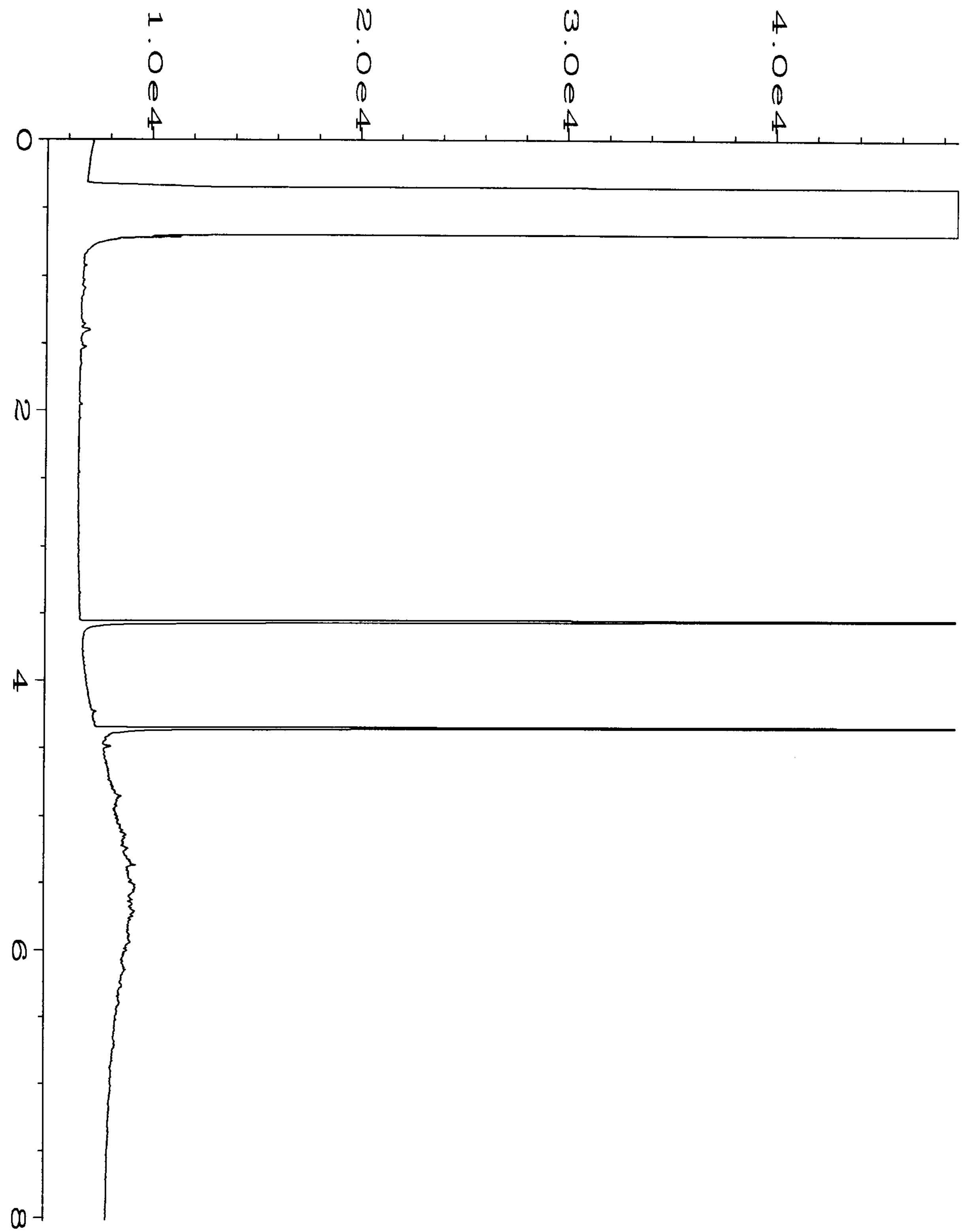
Data File Name   : C:\HPCHEM\1\DATA\02-08-17\050F1001.D
Operator   : mwdl   Page Number   : 1
Instrument   : GC1   Vial Number   : 50
Sample Name   : 702117-22   Injection Number : 1
Run Time Bar Code: Sequence Line   : 10
Acquired on   : 08 Feb 17   07:50 PM   Instrument Method: DX.MTH
Report Created on: 09 Feb 17   10:53 AM   Analysis Method : DX1.MTH



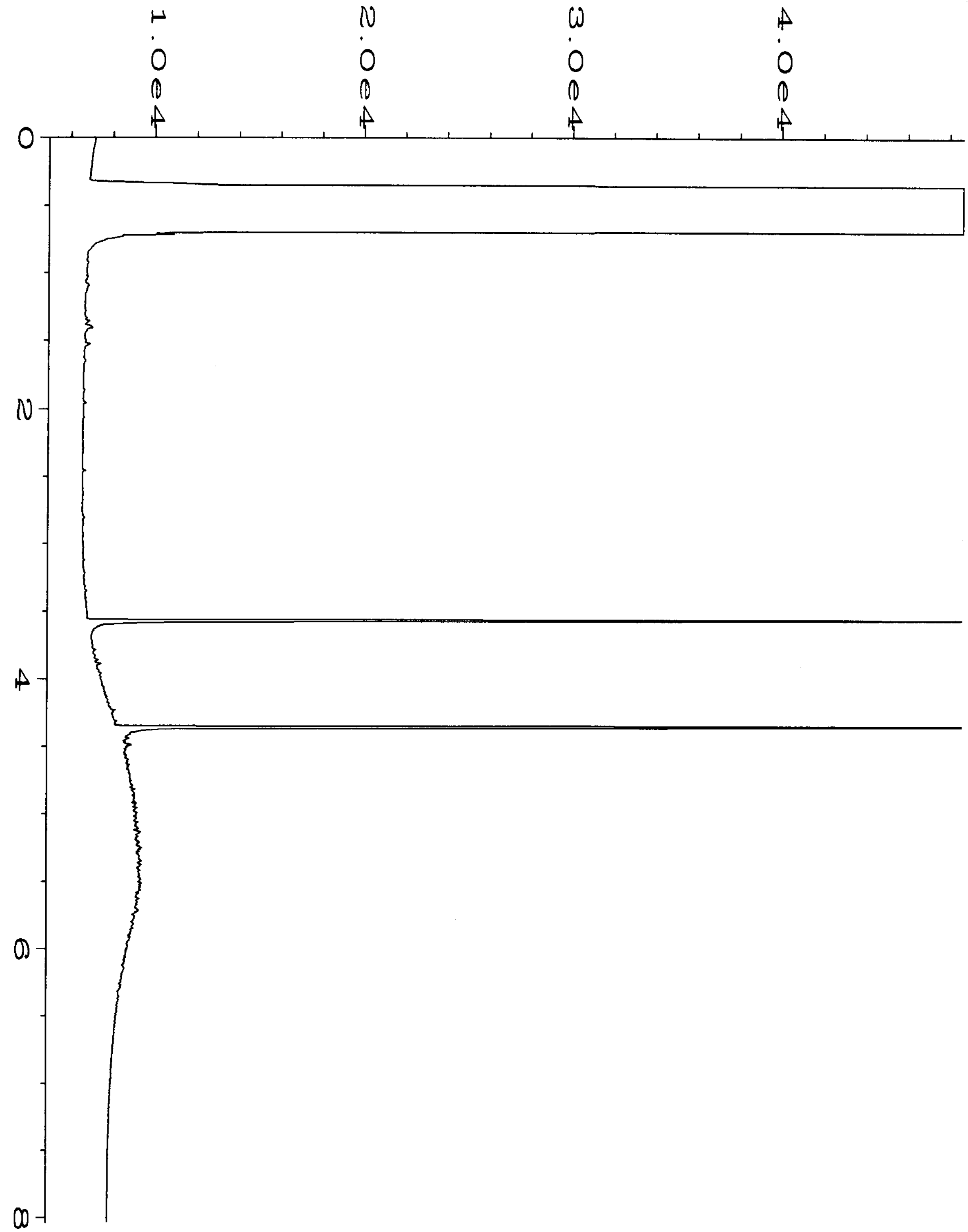
Data File Name	: C:\HPCHEM\1\DATA\02-08-17\051F1001.D			
Operator	: mwdl	Page Number	:	1
Instrument	: GC1	Vial Number	:	51
Sample Name	: 702117-23	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	10
Acquired on	: 08 Feb 17 08:02 PM	Instrument Method:		DX.MTH
Report Created on:	09 Feb 17 10:53 AM	Analysis Method	:	DX1.MTH



Data File Name	:	C:\HPCHEM\1\DATA\02-08-17\052F1001.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC1	Vial Number	:	52
Sample Name	:	702117-24	Injection Number	:	1
Run Time Bar Code	:		Sequence Line	:	10
Acquired on	:	08 Feb 17 08:14 PM	Instrument Method	:	DX.MTH
Report Created on	:	09 Feb 17 10:53 AM	Analysis Method	:	DX1.MTH



Data File Name	: C:\HPCHEM\1\DATA\02-08-17\053F1001.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 53
Sample Name	: 702117-25	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 08 Feb 17 08:26 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:53 AM	Analysis Method	: DX1.MTH



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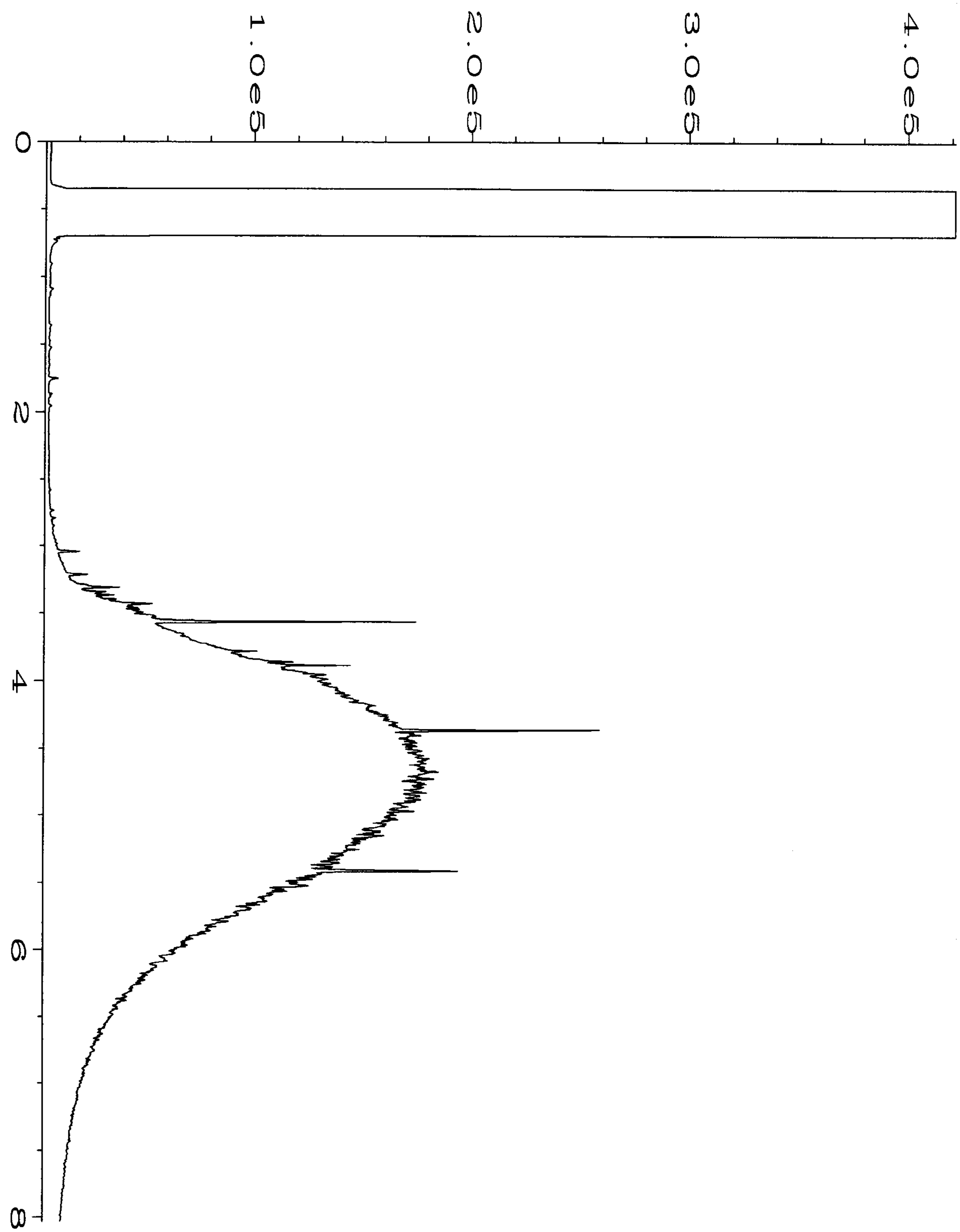
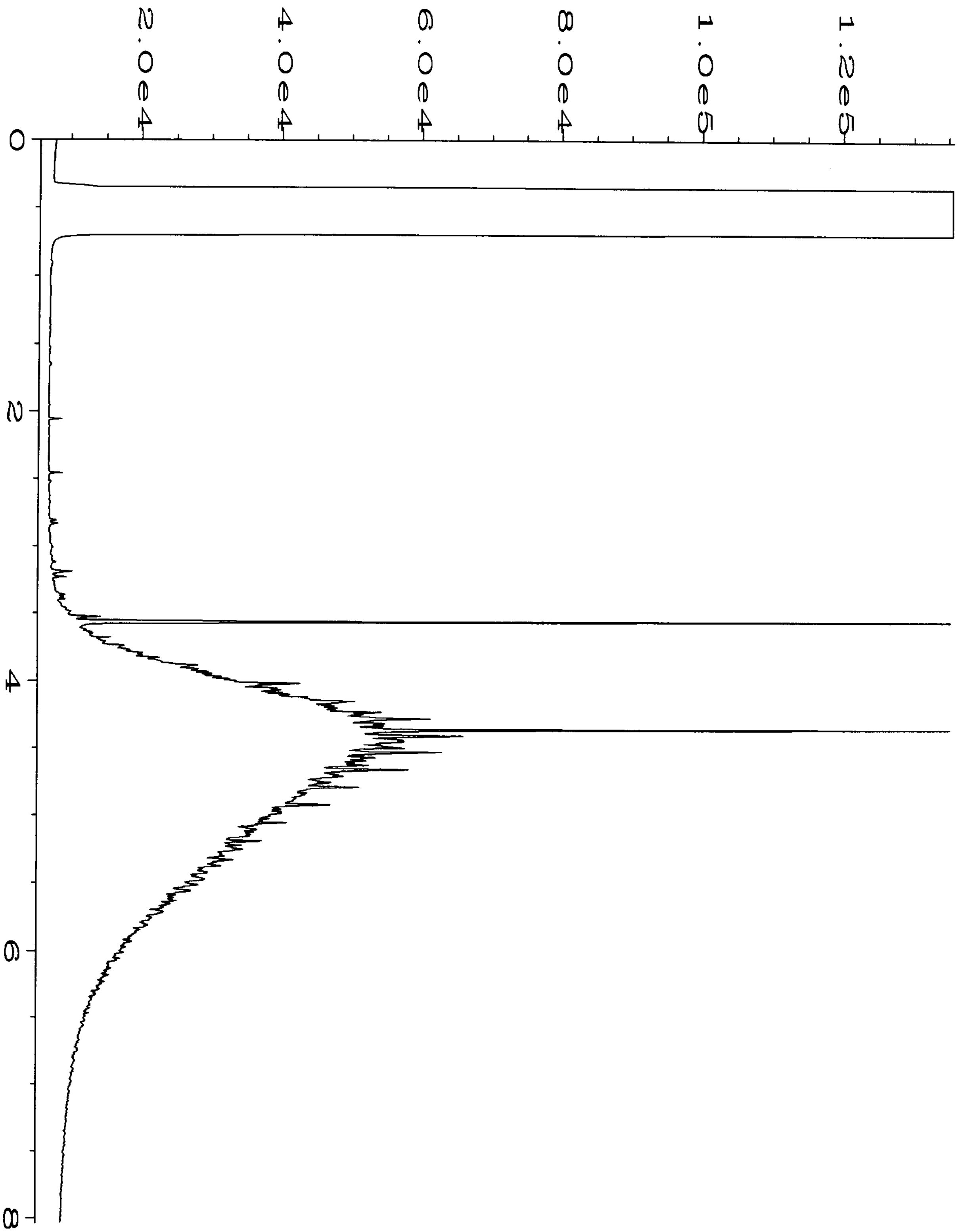
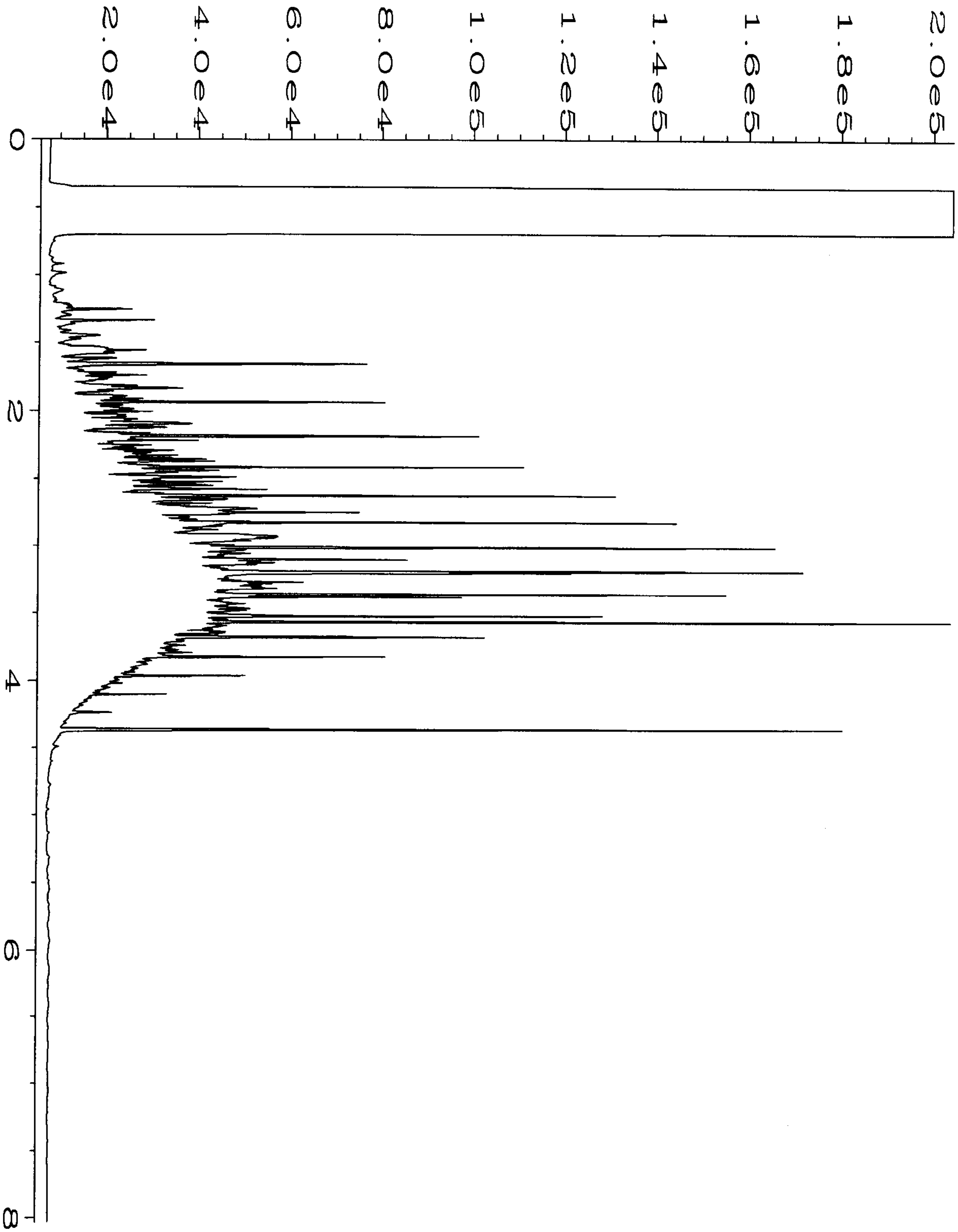
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 54
Sample Name	: 702117-26	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 10
Acquired on	: 08 Feb 17 08:38 PM	Instrument Method:	DX.MTH
Report Created on:	09 Feb 17 10:53 AM	Analysis Method	: DX1.MTH



Data File Name	:	C:\HPCHEM\1\DATA\02-08-17\055F1001.D			
Operator	:	mwdl	Page Number	:	1
Instrument	:	GC1	Vial Number	:	55
Sample Name	:	702117-27	Injection Number	:	1
Run Time Bar Code	:		Sequence Line	:	10
Acquired on	:	08 Feb 17 08:50 PM	Instrument Method	:	DX.MTH
Report Created on	:	09 Feb 17 10:53 AM	Analysis Method	:	DX1.MTH



Data File Name   : C:\HPCHEM\1\DATA\02-08-17\002F0201.D
Operator   : mwdl   Page Number   : 1
Instrument   : GC1   Vial Number   : 2
Sample Name   : 500 MO 47-139B   Injection Number : 1
Run Time Bar Code: Sequence Line   : 2
Acquired on   : 08 Feb 17 06:52 AM   Instrument Method: DX.MTH
Report Created on: 09 Feb 17 10:52 AM   Analysis Method : DX1.MTH



Data File Name : C:\HPCHEM\1\DATA\02-08-17\003F0201.D
Operator : mwdl
Instrument : GC1
Sample Name : 500 Dx 48-20B
Run Time Bar Code:
Acquired on : 08 Feb 17 07:03 AM
Report Created on: 09 Feb 17 10:52 AM

Page Number : 1
Vial Number : 3
Injection Number : 1
Sequence Line : 2
Instrument Method: DX.MTH
Analysis Method : DX1.MTH

(NP) ~~702117~~ 702117

SAMPLE CHAIN OF CUSTODY

ME 02/08/17

Page # 1 of 3 B05

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
18th and Jackson	0811-005

REMARKS

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH 1 Day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EX01-WSW01-6	EX01	6	01	2/8/17	0825	Soil	1	X								
EX01-SSW01-6		6	02		0830			X								
EX01-NSW01-6		6	03		0835			X								
EX01-B01-8		8	04		0838			X								
EX01-ESW01-6		6	05		0840			X								
EX01-B02-8		8	06		0840			X								
SP01-01	EX01 SP	—	07		0845			X								Analyze per RR
SP01-02		—	08		0846			X								Hold per CF 2/8/17 ME
SP01-03		—	09		0847			X								
EX02-B01-5	EX02	5	10		0940			X								Samples received at 3 °C

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Tochilin	Clare Tochilin	SoundEarth	2/8/17	1300
Received by: [signature]	Michael Erdahl	FB Inc	2/8/17	1300
Relinquished by:				
Received by:				

702117

SAMPLE CHAIN OF COUSTODY ME 02/08/17

B05

Page # 2 of 3

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
18th and Jackson	0811-005

REMARKS

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH 1 Day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EX02-SSW01-4	EX02	4	11	2/8/17	0942	Soil	1	X								
EX02-ESW01-4		4	12		0944			X								
EX02-B02-5		5	13		0946			X								
EX02-WSW01-4		4	14		0948			X								
EX02-NSW01-4		4	15		0950			X								
SP02-01	EX02 SP	—	16		0955			X								Analyze per RR
SP02-02		—	17		0956			X								~~Hold per~~ CT 2/8/17 ME
SP02-03		—	18		0957			X								
SP03-01	EX03 SP	—	19		1030			X								
SP03-02		—	20		1032			X								Samples received at 4

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: Clare Tochilin	Clare Tochilin	SoundEarth	2/8/17	1300
Received by: [signature]	Michael Erdahl	F&Bruya	↓	↓
Relinquished by:				
Received by:				

FORMS\COC\COC.DOC

702117

SAMPLE CHAIN OF CUSTODY

ME 02/08/17

B05

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO.	PO #
18th and Jackson	0811-005

REMARKS

Page # 3 of 3

TURNAROUND TIME
~~Standard (2 Weeks)~~
RUSH 1 Day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EX03-B01-4	EX03	4	21	2/8/17	1040	Soil	1	X								
EX03-B02-4		4	22		1042			X								
EX03-NSW01-2		2	23		1044			X								
EX03-WSW01-2		2	24		1046			X								
EX03-ESW01-2		2	25		1048			X								
EX03-SSW01-2		2	26		1050			X								
SP03-03	EX03 SP	—	27		1055			X								

CT 2/8/17

Samples received at 3 °C

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Toch	Clare Tochilin	SoundEarth	2/8/17	1300
Received by:	[signature]	Michael Erdahl	F&BI		
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

Friedman & Bruya, Inc. #702173

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

February 14, 2017

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on February 10, 2017 from the SOU_0811-005_ 20170210, F&BI 702173 project. There are 4 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
c: Clare Tochilin
SOU0214R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 10, 2017 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20170210, F&BI 702173 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
702173 -01	ED03-B03-6
702173 -02	ED03-WSW02-3

All quality control requirements were acceptable.

Date of Report: 02/14/17
Date Received: 02/10/17
Project: SOU_0811-005_ 20170210, F&BI 702173
Date Extracted: 02/13/17
Date Analyzed: 02/13/17

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 56-165)
ED03-B03-6 702173-01	<50	<250	105
ED03-WSW02-3 702173-02	<50	<250	101
Method Blank 07-297 MB	<50	<250	103

Date of Report: 02/14/17
Date Received: 02/10/17
Project: SOU_0811-005_ 20170210, F&BI 702173

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

Laboratory Code: 702173-01 (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	91	96	63-146	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	102	79-144

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.

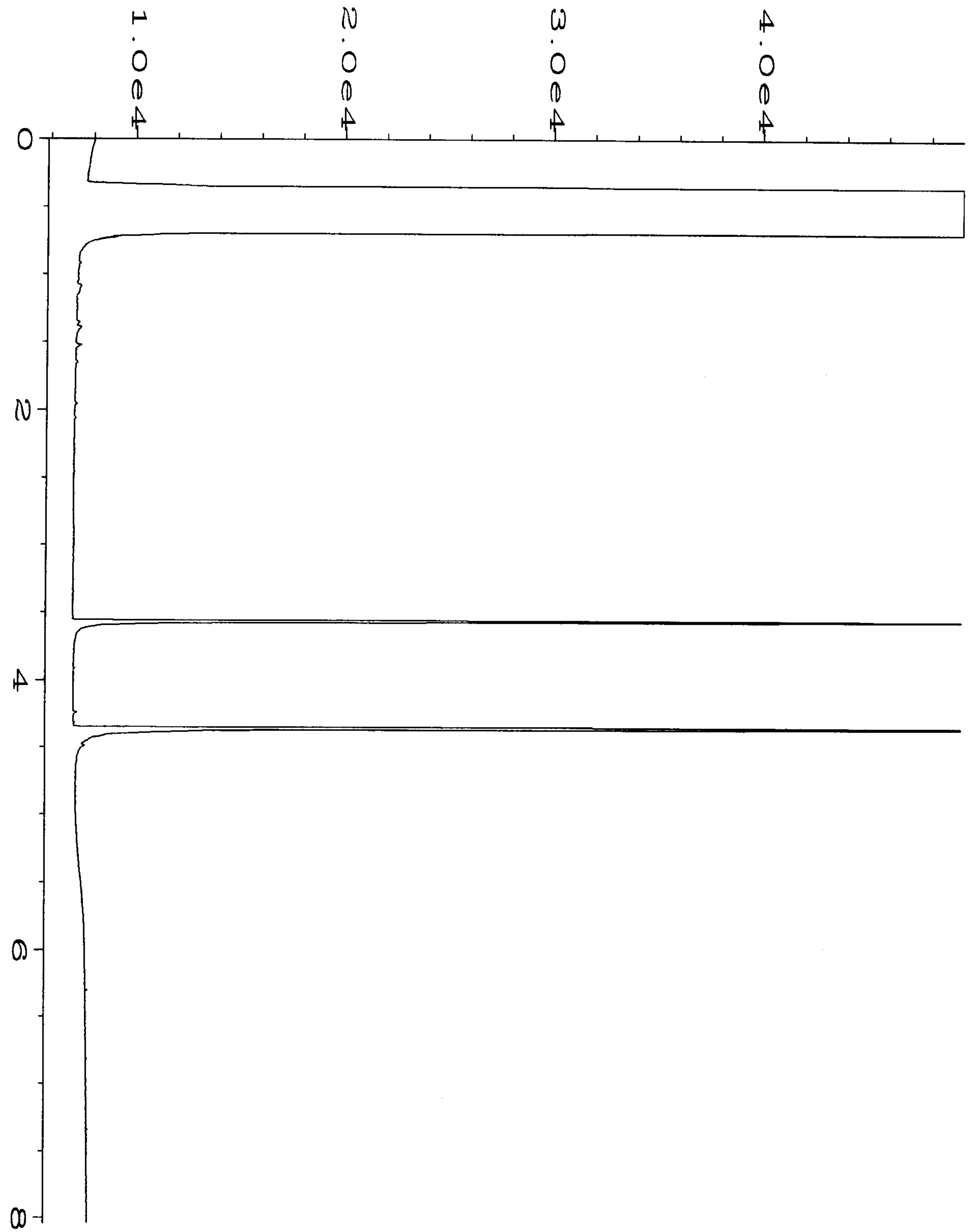
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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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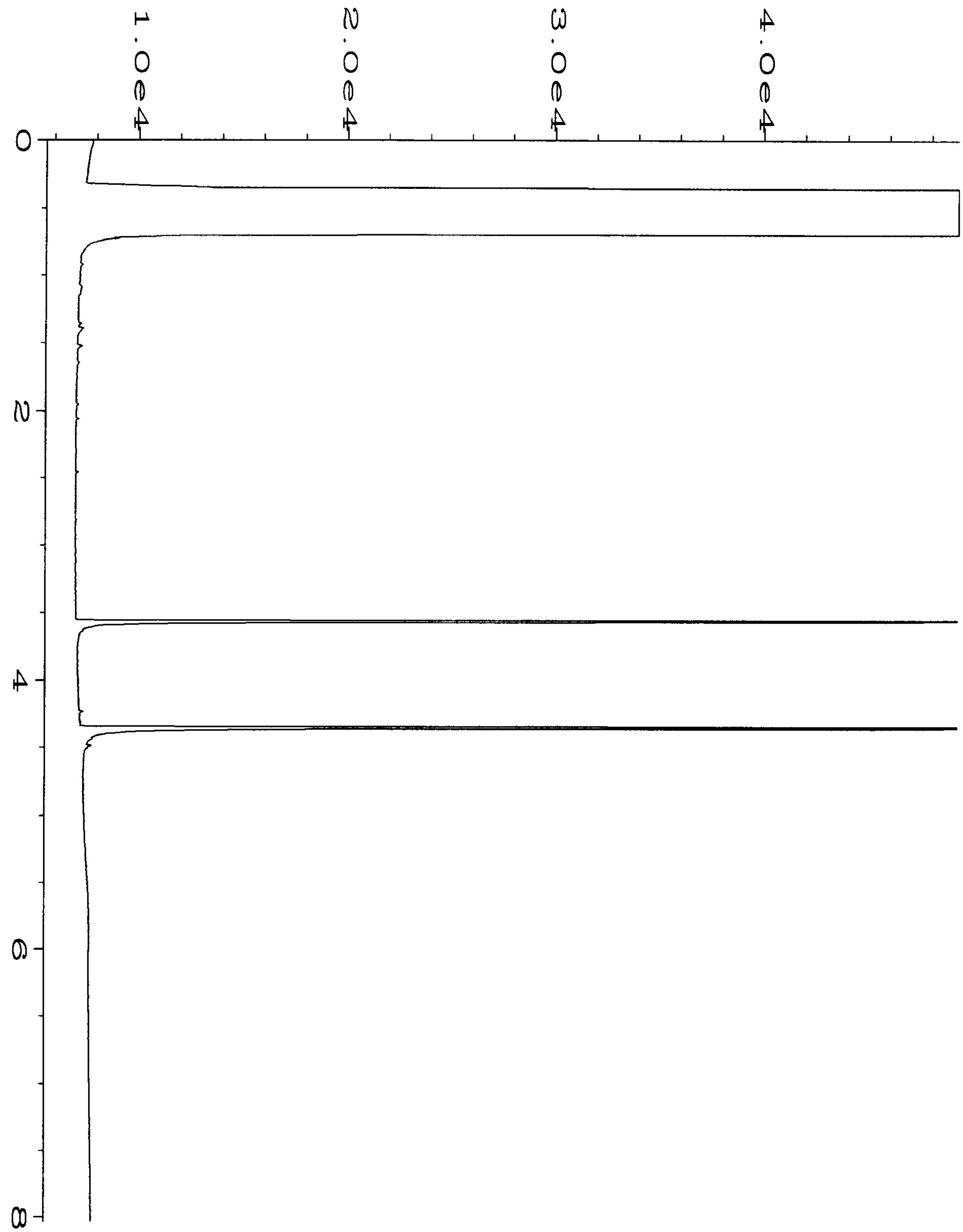
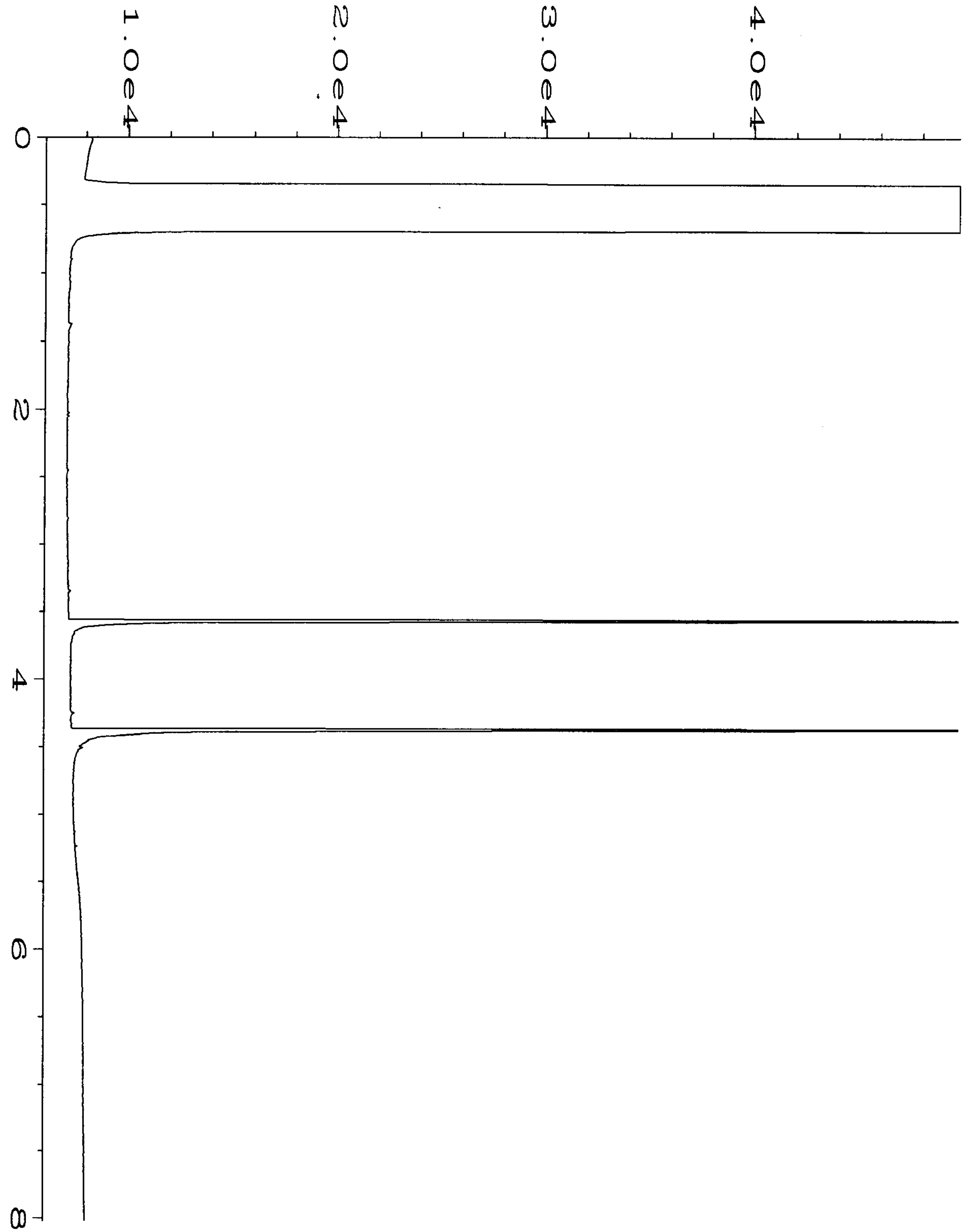
Operator : mwdl
Instrument : GC1
Sample Name : 702173-01
Run Time Bar Code:
Acquired on : 13 Feb 17 10:28 AM
Report Created on: 13 Feb 17 12:29 PM

Page Number : 1
Vial Number : 10
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH

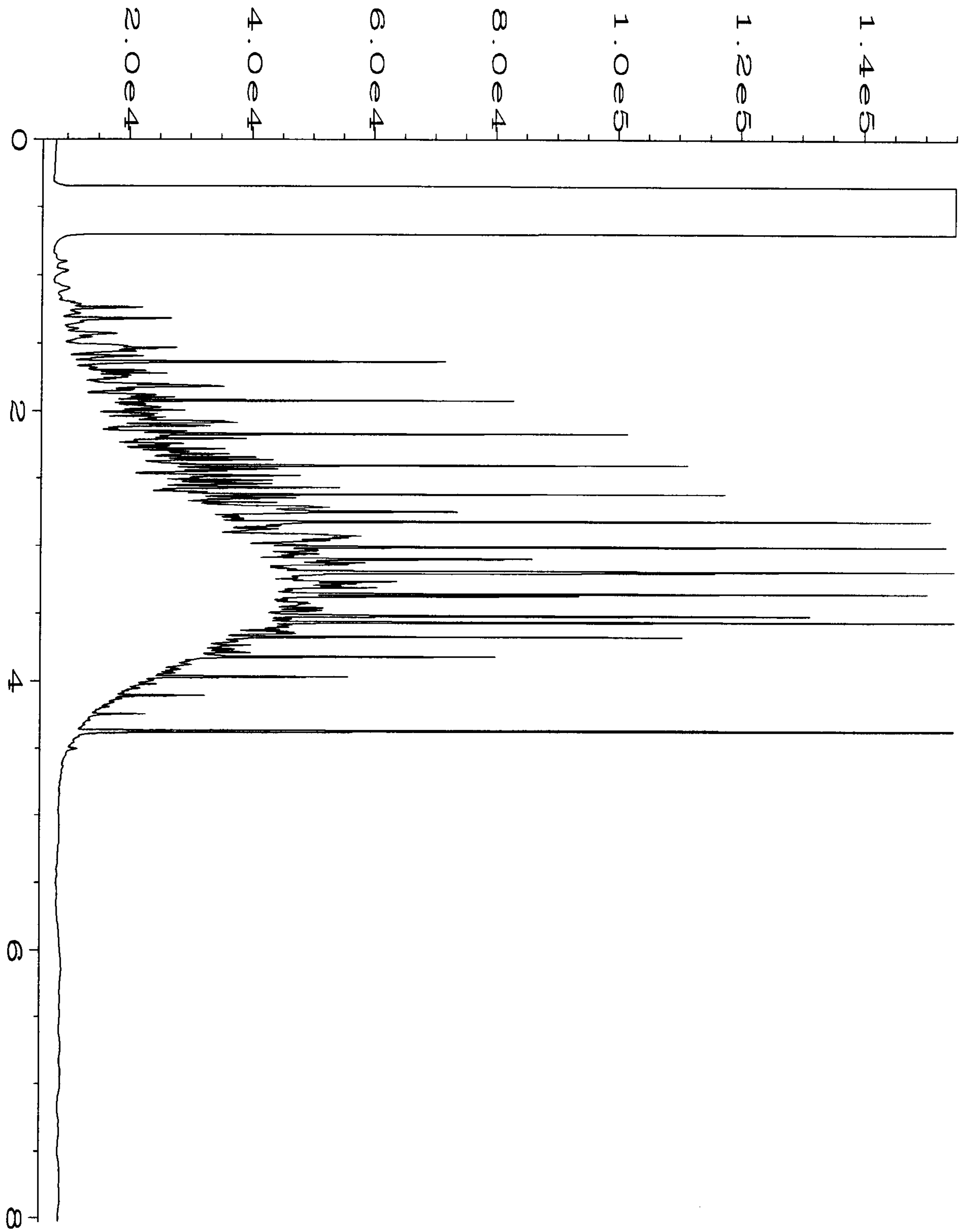


Data File Name	: C:\HPCHEM\1\DATA\02-13-17\011F0301.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 11
Sample Name	: 702173-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 3
Acquired on	: 13 Feb 17 10:40 AM	Instrument Method:	DX.MTH
Report Created on:	13 Feb 17 12:29 PM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\02-13-17\006F0301.D
Operator : mwdl
Instrument : GC1
Sample Name : 07-297 mb
Run Time Bar Code:
Acquired on : 13 Feb 17 09:43 AM
Report Created on: 13 Feb 17 12:29 PM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name : C:\HPCHEM\1\DATA\02-13-17\003F0201.D
Operator : mwdl
Instrument : GC1
Sample Name : 500 Dx 48-20B
Run Time Bar Code:
Acquired on : 13 Feb 17 06:48 AM
Report Created on: 13 Feb 17 12:29 PM

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

702173

SAMPLE CHAIN OF CUSTODY

ME 02/10/17

Page # 1 of 1 B01

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (*signature*) Clare Toch

PROJECT NAME/NO.	PO #
18th and Jackson	0811-005

REMARKS

TURNAROUND TIME
Standard (2 Weeks)
RUSH 1 Day
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EX03-B03-6	EX03	6	01	2/10/17	1240	Soil	1	X								
EX03-WSW02-3	EX03	3	02	2/10/17	1245	Soil	1	X								

CT 2/10/17

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

FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Clare Toch	Clare Tochilin	SoundEarth	2/10/17	1355
Received by: [signature]	Nhan Phan	FeBI	2/10/17	1355
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc. #705113

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

May 9, 2017

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on May 5, 2017 from the SOU_0811-005_ 20170505, F&BI 705113 project. There are 4 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
c: Clare Tochilin
SOU0509R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 5, 2017 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20170505, F&BI 705113 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
705113 -01	EP-WSW-02
705113 -02	EP-B-05

All quality control requirements were acceptable.

Date of Report: 05/09/17
Date Received: 05/05/17
Project: SOU_0811-005_ 20170505, F&BI 705113
Date Extracted: 05/05/17
Date Analyzed: 05/05/17

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 56-165)
EP-WSW-02 705113-01	11,000	<250	108
EP-B-05 705113-02	2,700	<250	97
Method Blank 07-990 MB	<50	<250	89

Date of Report: 05/09/17
Date Received: 05/05/17
Project: SOU_0811-005_ 20170505, F&BI 705113

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

Laboratory Code: 705104-01 (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	82	92	63-146	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	82	79-144

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.

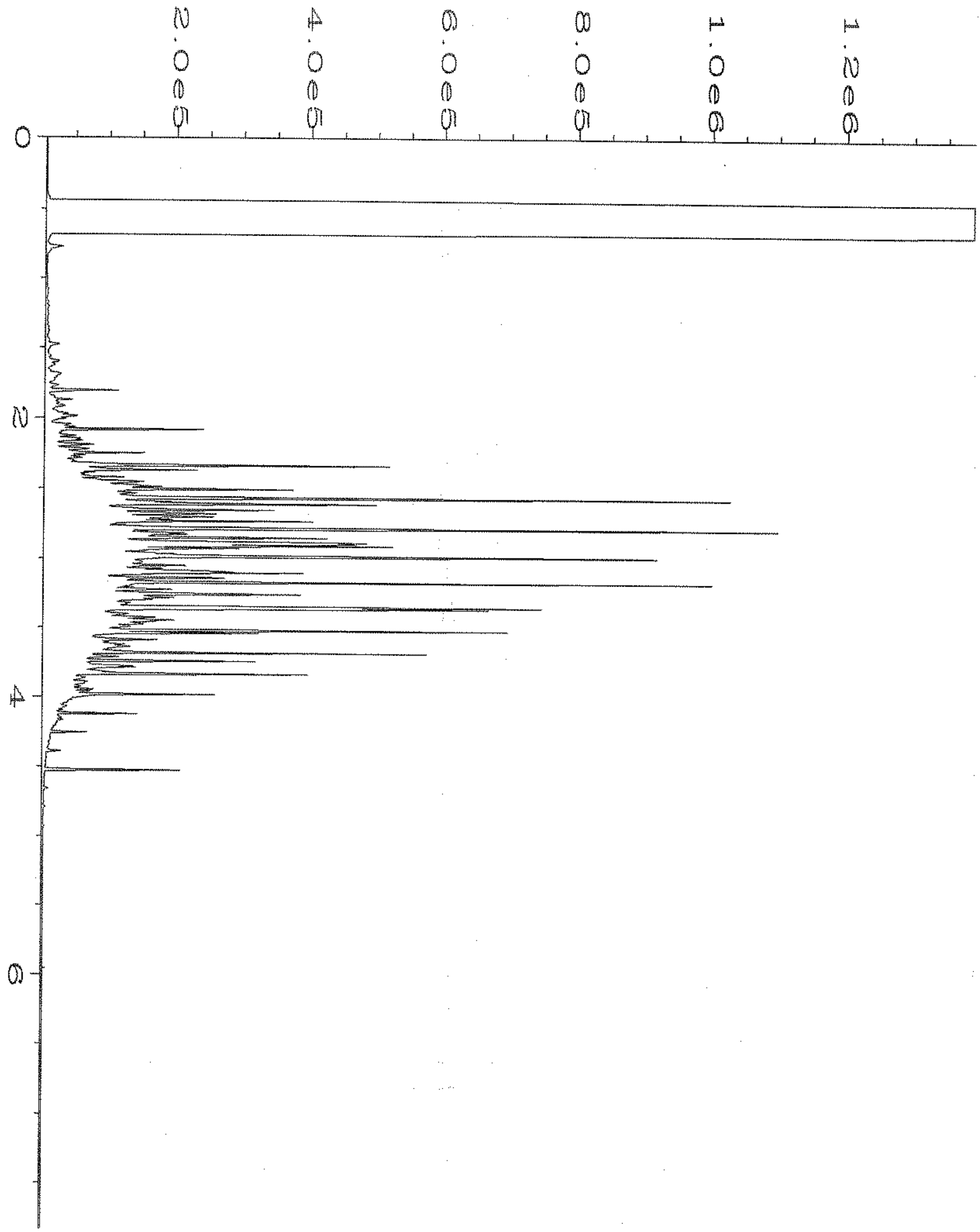
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

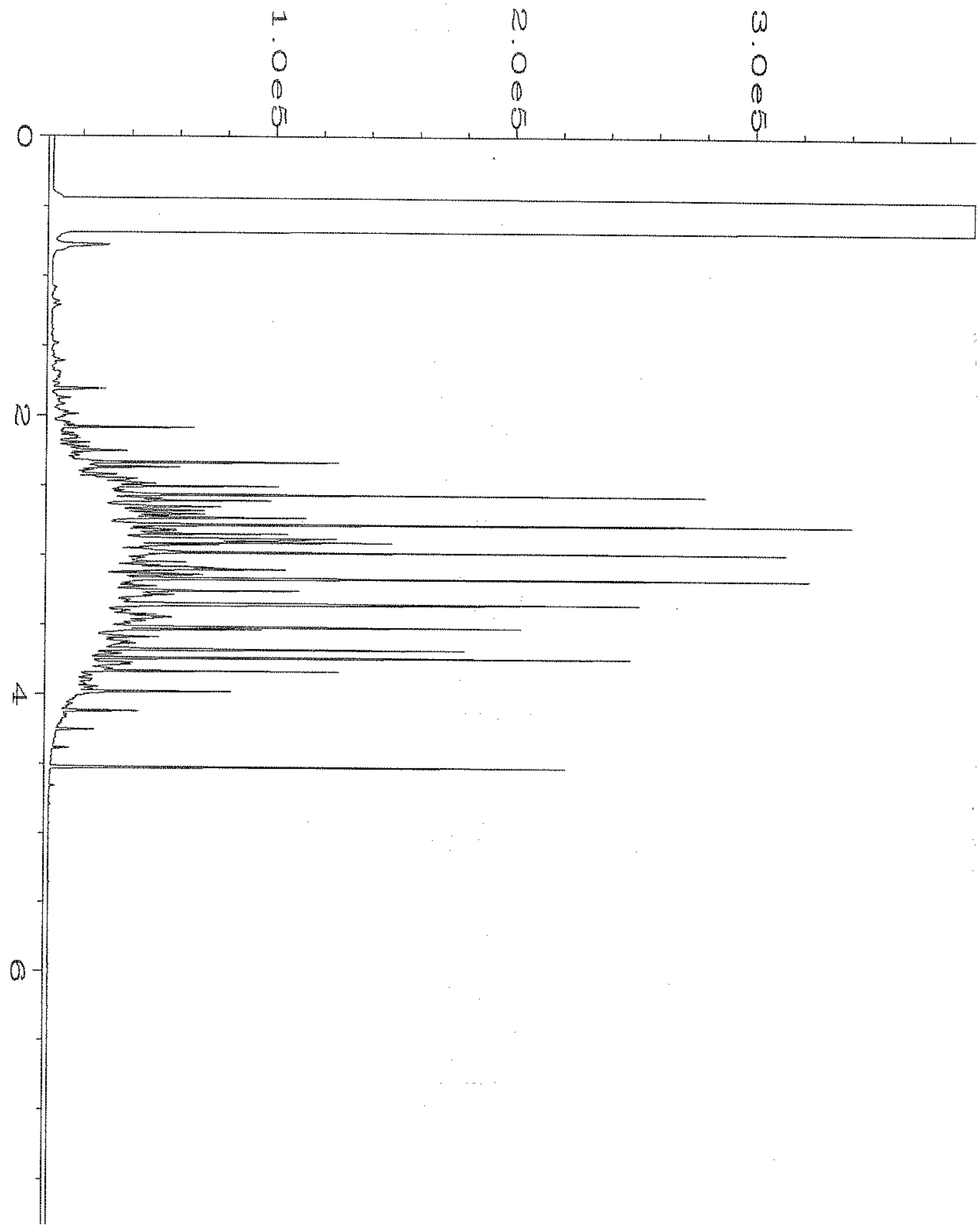
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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

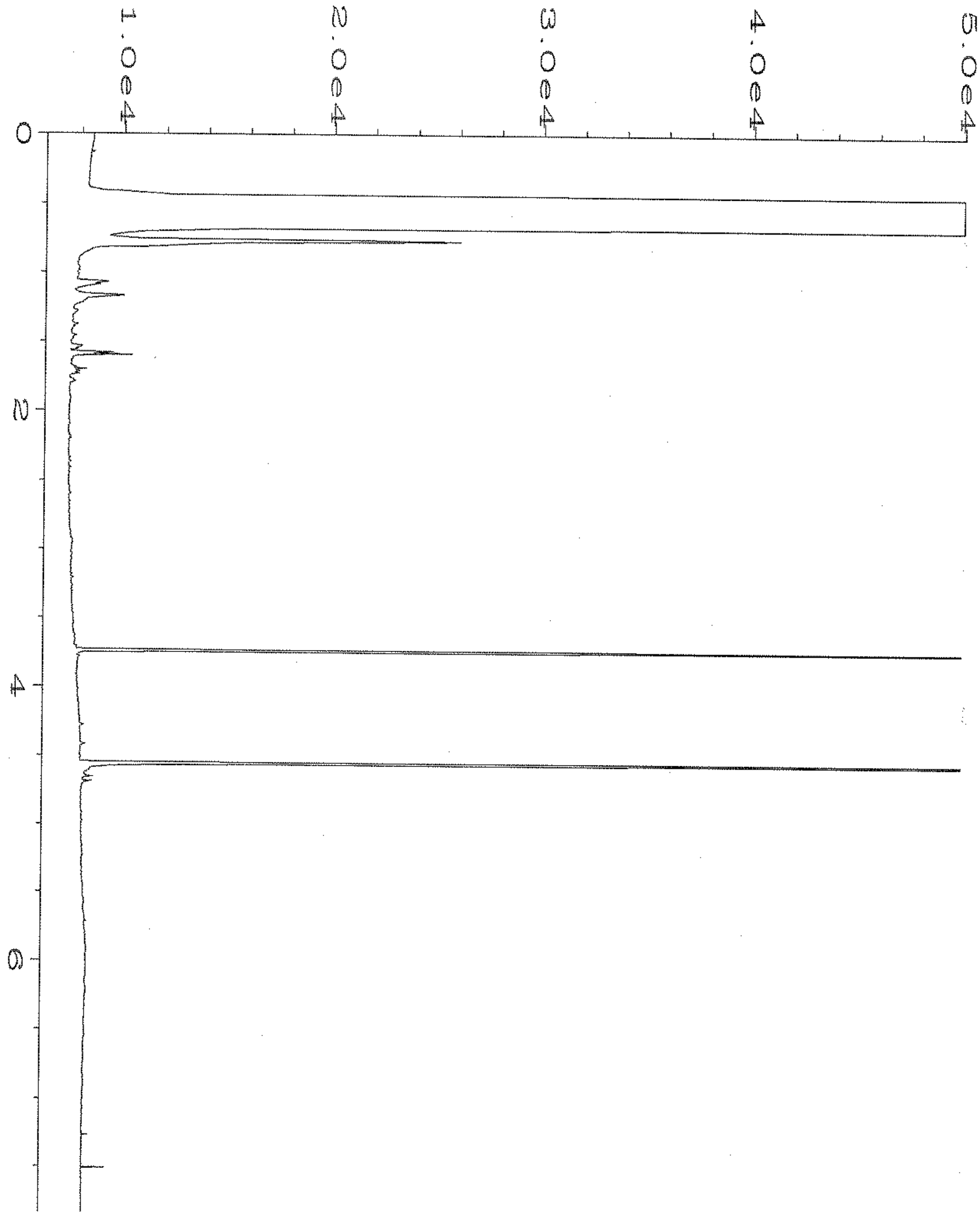
x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Data File Name	: C:\HPCHEM\1\DATA\05-05-17\022F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 22
Sample Name	: 705113-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 May 17 07:07 PM	Instrument Method	: DX.MTH
Report Created on	: 08 May 17 08:50 AM	Analysis Method	: DX.MTH

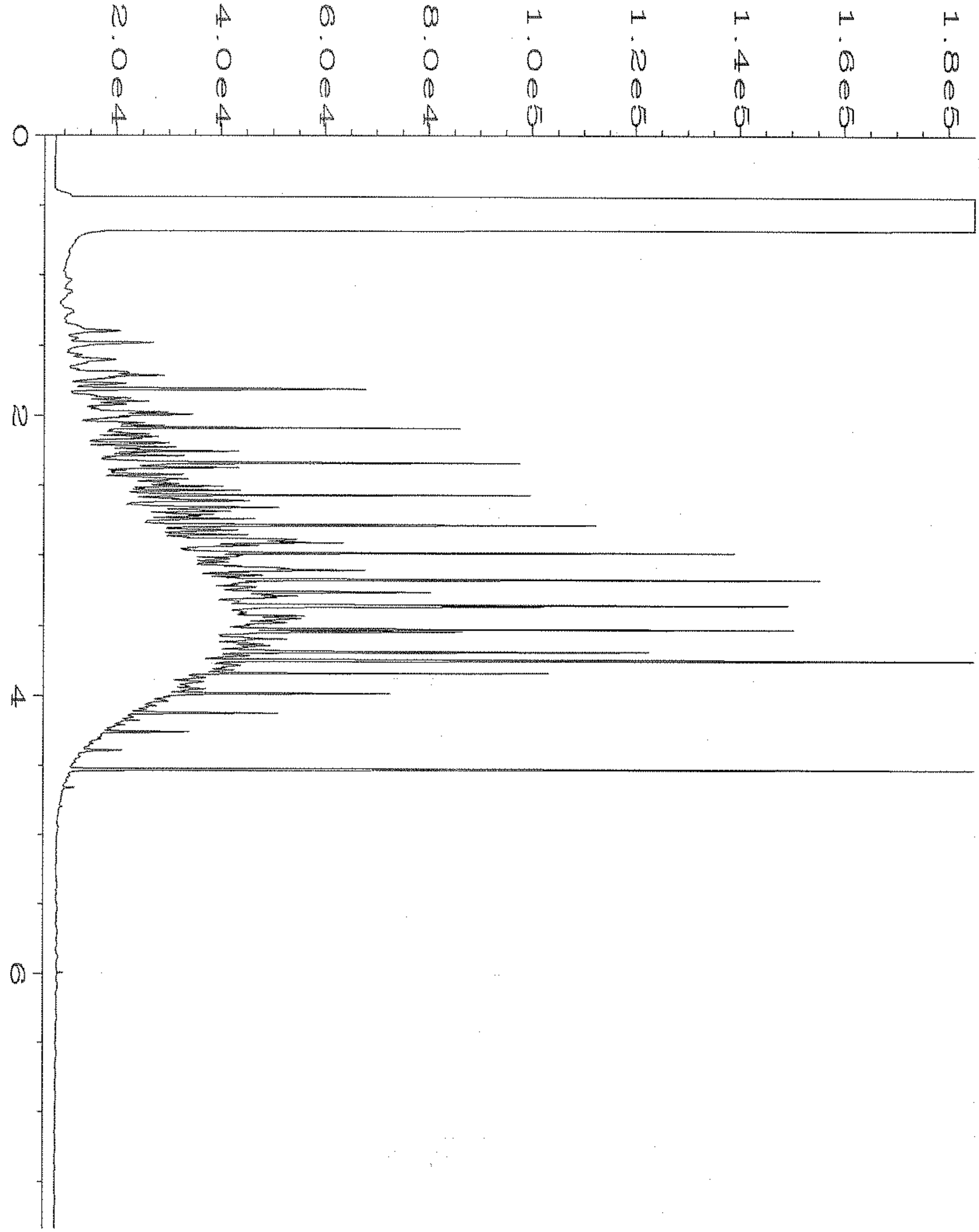


Data File Name	: C:\HPCHEM\1\DATA\05-05-17\023F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 23
Sample Name	: 705113-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 05 May 17 07:19 PM	Instrument Method:	DX.MTH
Report Created on:	08 May 17 08:50 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\1\DATA\05-05-17\006F0501.D
Operator : mwdl
Instrument : GC1
Sample Name : 07-990 mb
Run Time Bar Code:
Acquired on : 05 May 17 03:15 PM
Report Created on: 08 May 17 08:51 AM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\1\DATA\05-05-17\003F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC1	Vial Number	: 3
Sample Name	: 500 Dx 49-188E	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 05 May 17 11:28 AM	Instrument Method:	DX.MTH
Report Created on:	08 May 17 08:51 AM	Analysis Method	: DX.MTH

705113

SAMPLE CHAIN OF CUSTODY

ME 05/05/17 VS1/D01

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toch

PROJECT NAME/NO. 18th and Jackson

PO # 0811-005

REMARKS

Page # 1 of

TURNAROUND TIME
Standard (2 Weeks)
RUSH Monday, 5/8, 10 AM
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EP-WSW-02	EP	2	01 A-E	5/5/17	1143	Soil	5	X								
EP-B-05	EP	5	02	5/5/17	1150	Soil	5	X								

WT 5/5/17

Samples received at 3 °C

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Toch	Clare Tochilin	SoundEarth	5/5/17	1300
Received by:	C. Baldes	CRISTIAN BALDELOMAR	FEDEX	5/5/17	1339
Relinquished by:					
Received by:	Dwo	Do W	F&BI	5-5-17	14.15

Friedman & Bruya, Inc. #705140

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

May 10, 2017

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on May 8, 2017 from the SOU_0811-005_ 20170508, F&BI 705140 project. There are 4 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
c: Clare Tochilin
SOU0510R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 8, 2017 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20170508, F&BI 705140 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
705140 -01	EP-ESW01-02
705140 -02	EP-NSW01-02
705140 -03	EP-B02-07.5
705140 -04	EP-B03-07
705140 -05	EP-WSW02-03
705140 -06	EP-WSW03-03
705140 -07	EP-SSW01-03

All quality control requirements were acceptable.

Date of Report: 05/10/17
Date Received: 05/08/17
Project: SOU_ 0811-005_ 20170508, F&BI 705140
Date Extracted: 05/08/17
Date Analyzed: 05/08/17

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 53-144)
EP-ESW01-02 705140-01	<50	<250	119
EP-NSW01-02 705140-02	<50	<250	103
EP-B02-07.5 705140-03	<50	<250	101
EP-B03-07 705140-04	<50	<250	101
EP-WSW02-03 705140-05	5,200	<250	108
EP-WSW03-03 705140-06	<50	<250	104
EP-SSW01-03 705140-07	<50	<250	102
Method Blank 07-1000 MB	<50	<250	104

Date of Report: 05/10/17
Date Received: 05/08/17
Project: SOU_ 0811-005_ 20170508, F&BI 705140

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

Laboratory Code: 705140-01 (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	96	95	64-133	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	97	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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.

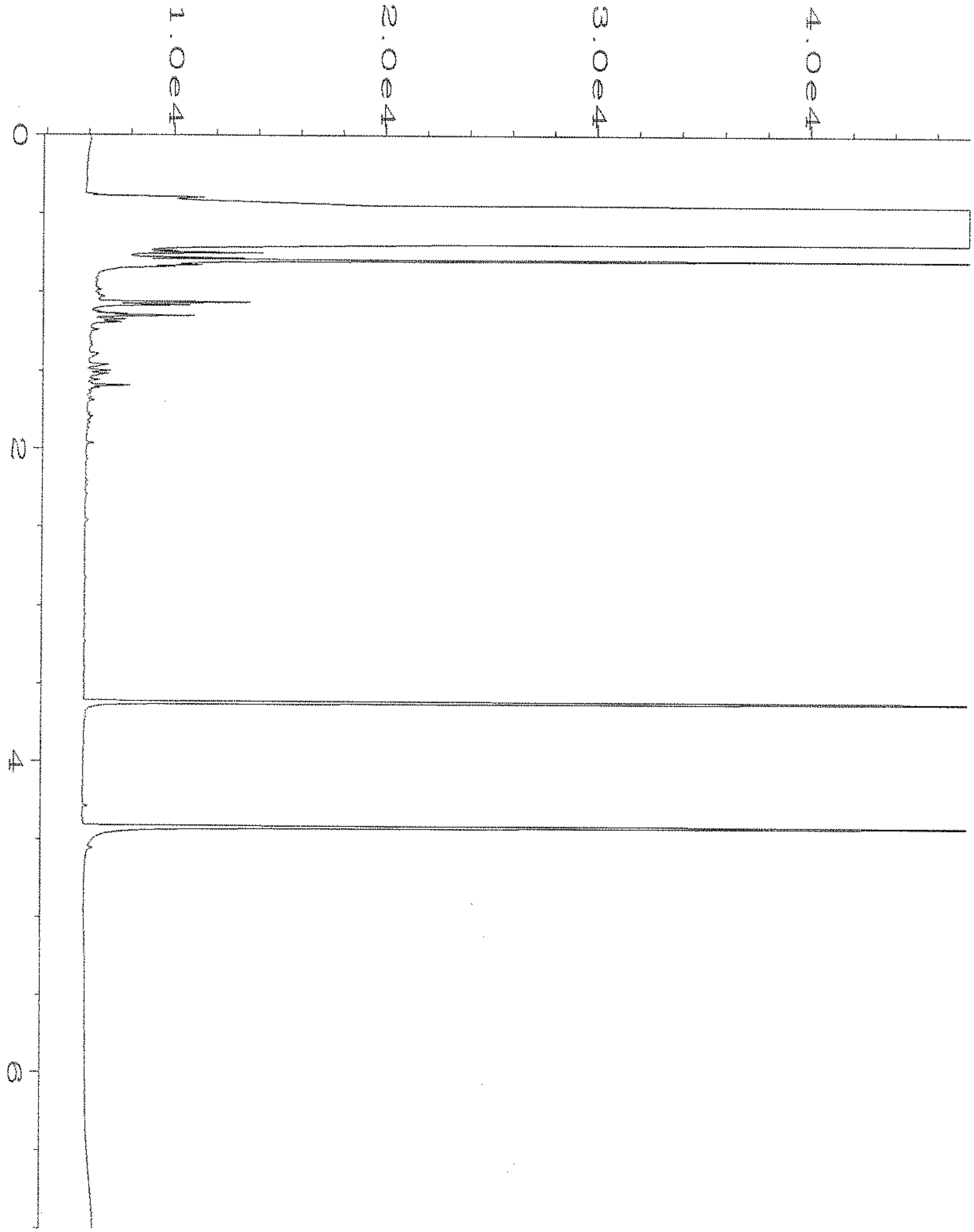
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

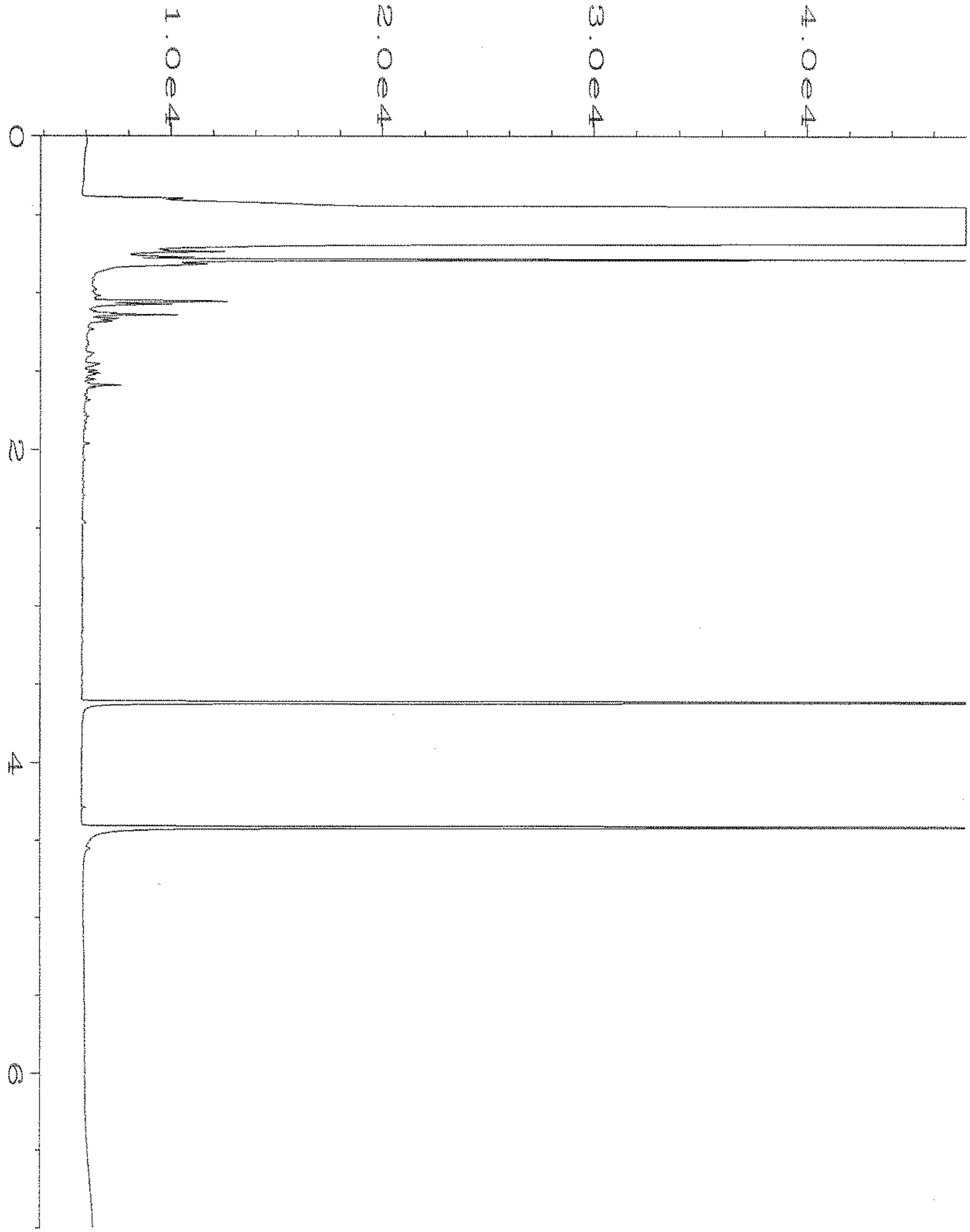
vo - The value reported fell outside the control limits established for this analyte.

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



Data File Name   : C:\HPCHEM\6\DATA\05-08-17\031F0701.D
Operator   : mwdl
Instrument   : GC #6
Sample Name   : 705140-01
Run Time Bar Code:
Acquired on   : 08 May 17 04:50 PM
Report Created on: 09 May 17 09:04 AM

Page Number   : 1
Vial Number   : 31
Injection Number : 1
Sequence Line   : 7
Instrument Method: DX.MTH
Analysis Method   : DX.MTH



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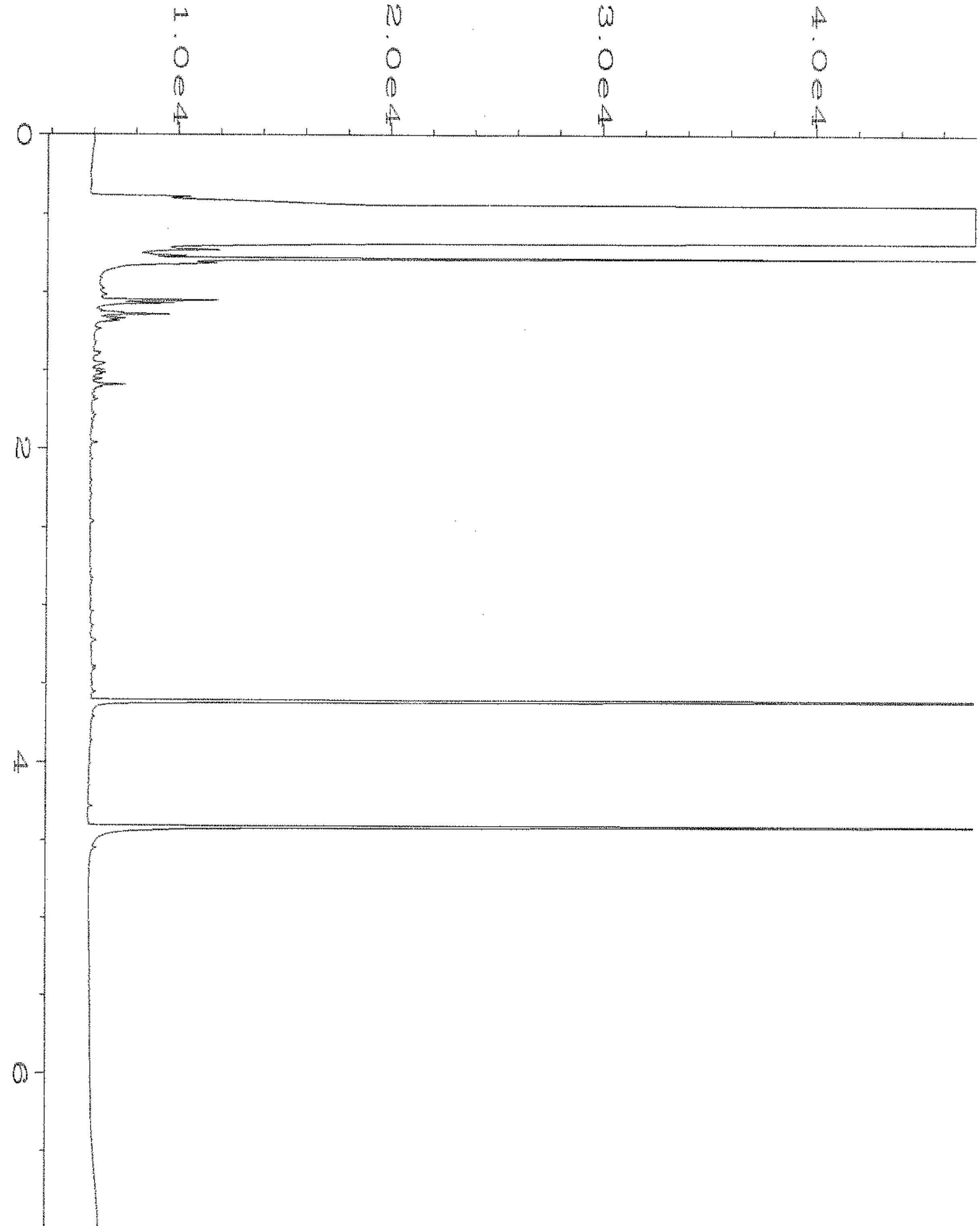
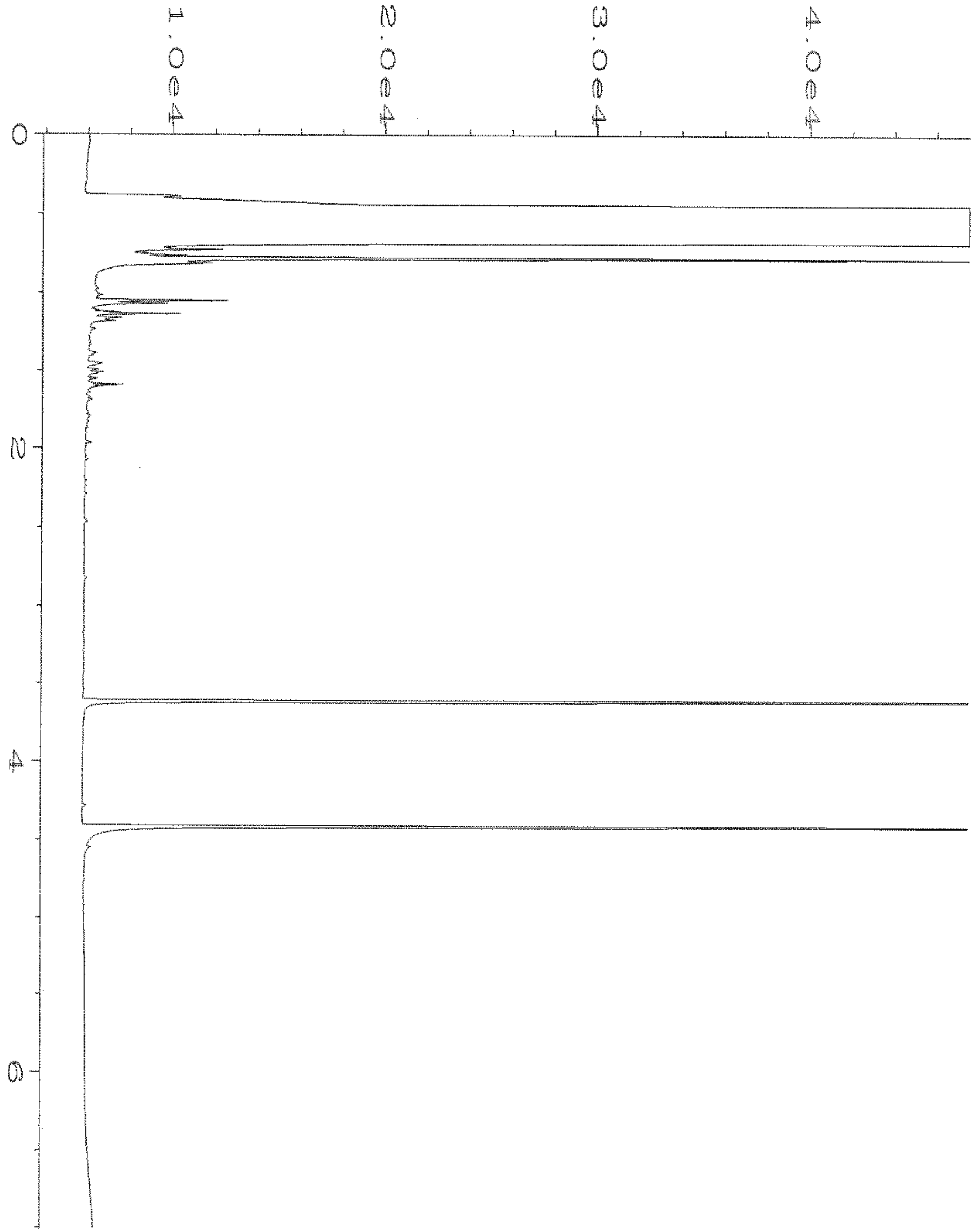
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 32
Sample Name	: 705140-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 17 05:01 PM	Instrument Method:	DX.MTH
Report Created on:	09 May 17 09:04 AM	Analysis Method	: DX.MTH

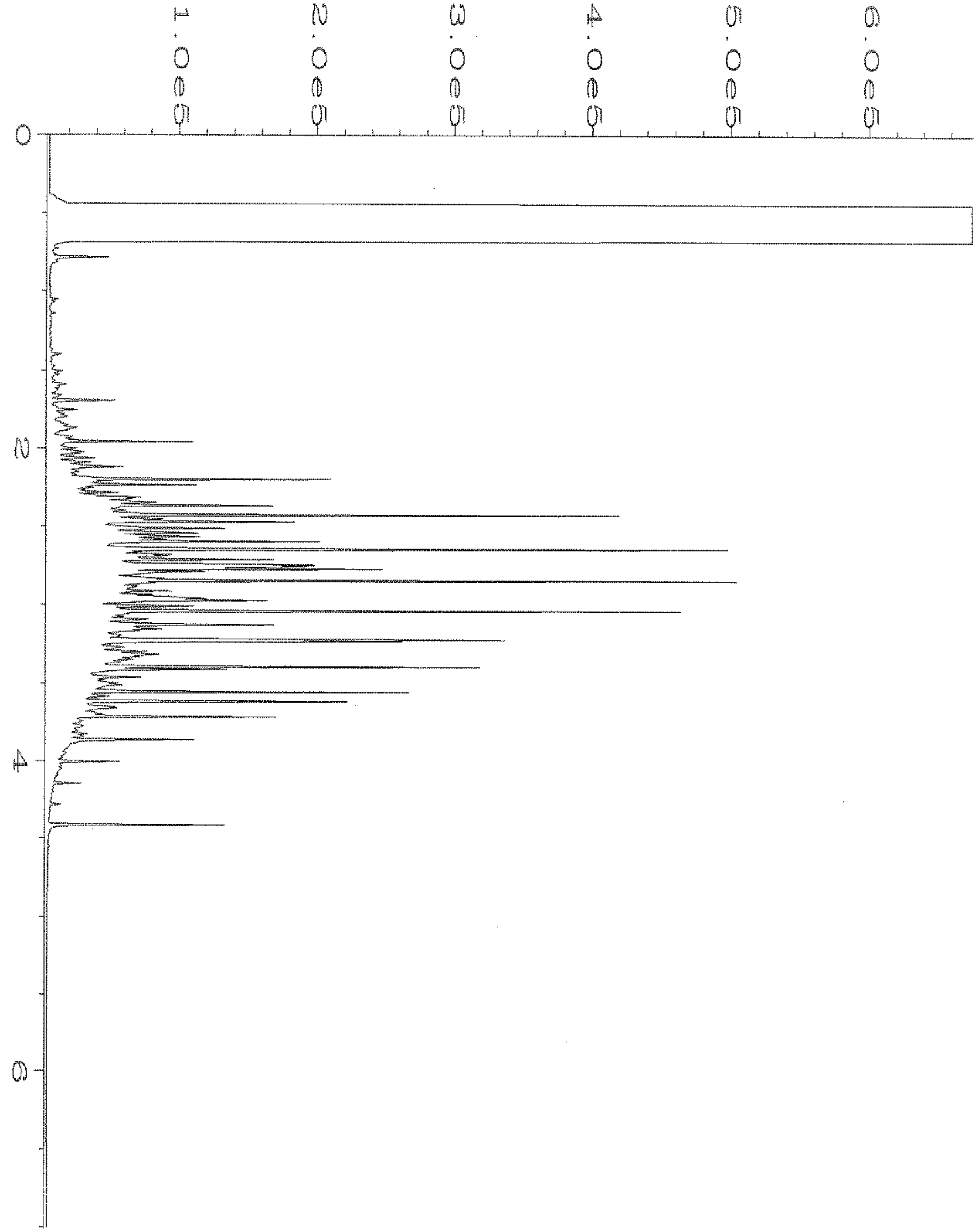


Data File Name	: C:\HPCHEM\6\DATA\05-08-17\033F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 33
Sample Name	: 705140-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 17 05:12 PM	Instrument Method	: DX.MTH
Report Created on:	09 May 17 09:04 AM	Analysis Method	: DX.MTH



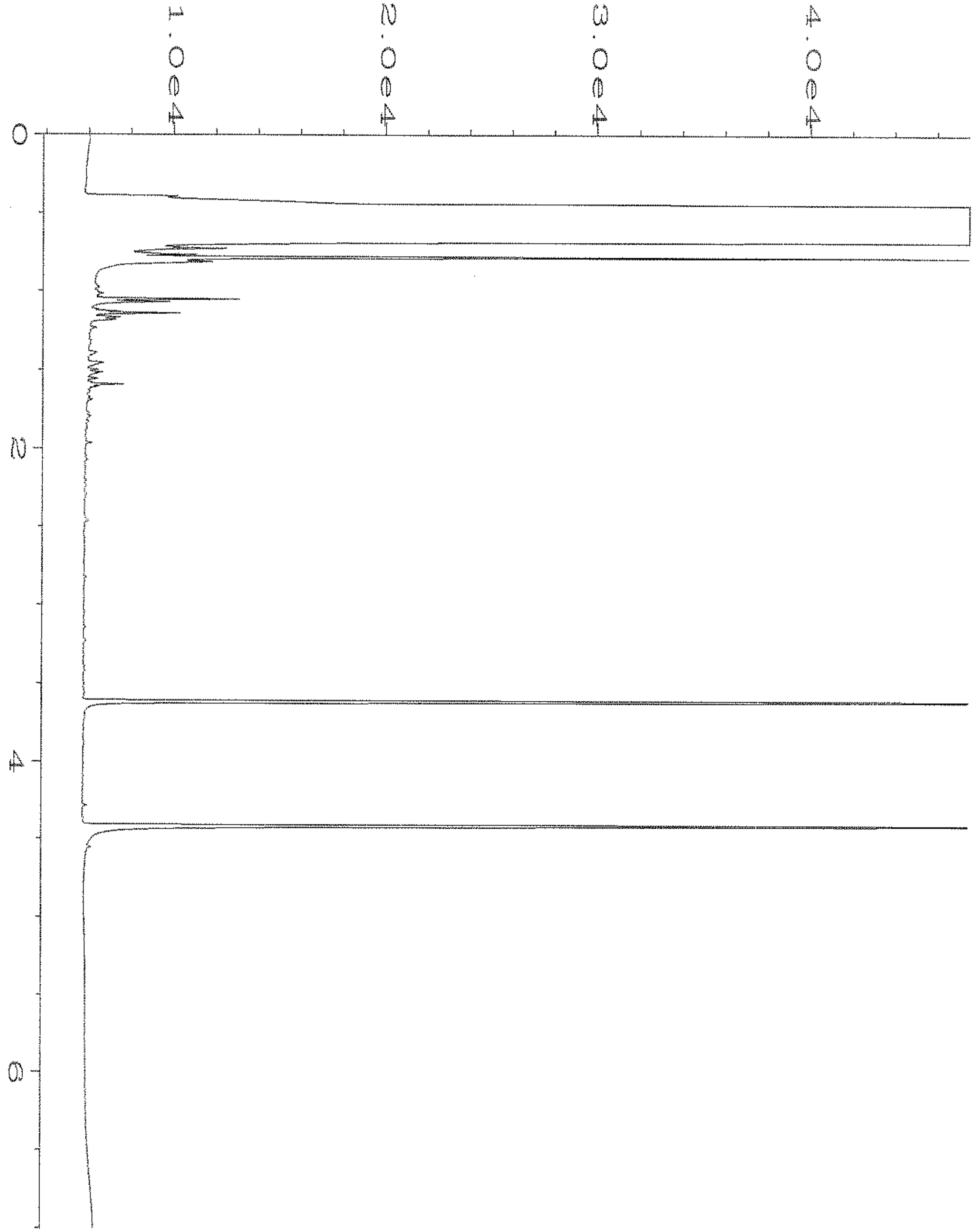
Data File Name : C:\HPCHEM\6\DATA\05-08-17\034F0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 705140-04
Run Time Bar Code:
Acquired on : 08 May 17 05:22 PM
Report Created on: 09 May 17 09:04 AM

Page Number : 1
Vial Number : 34
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH

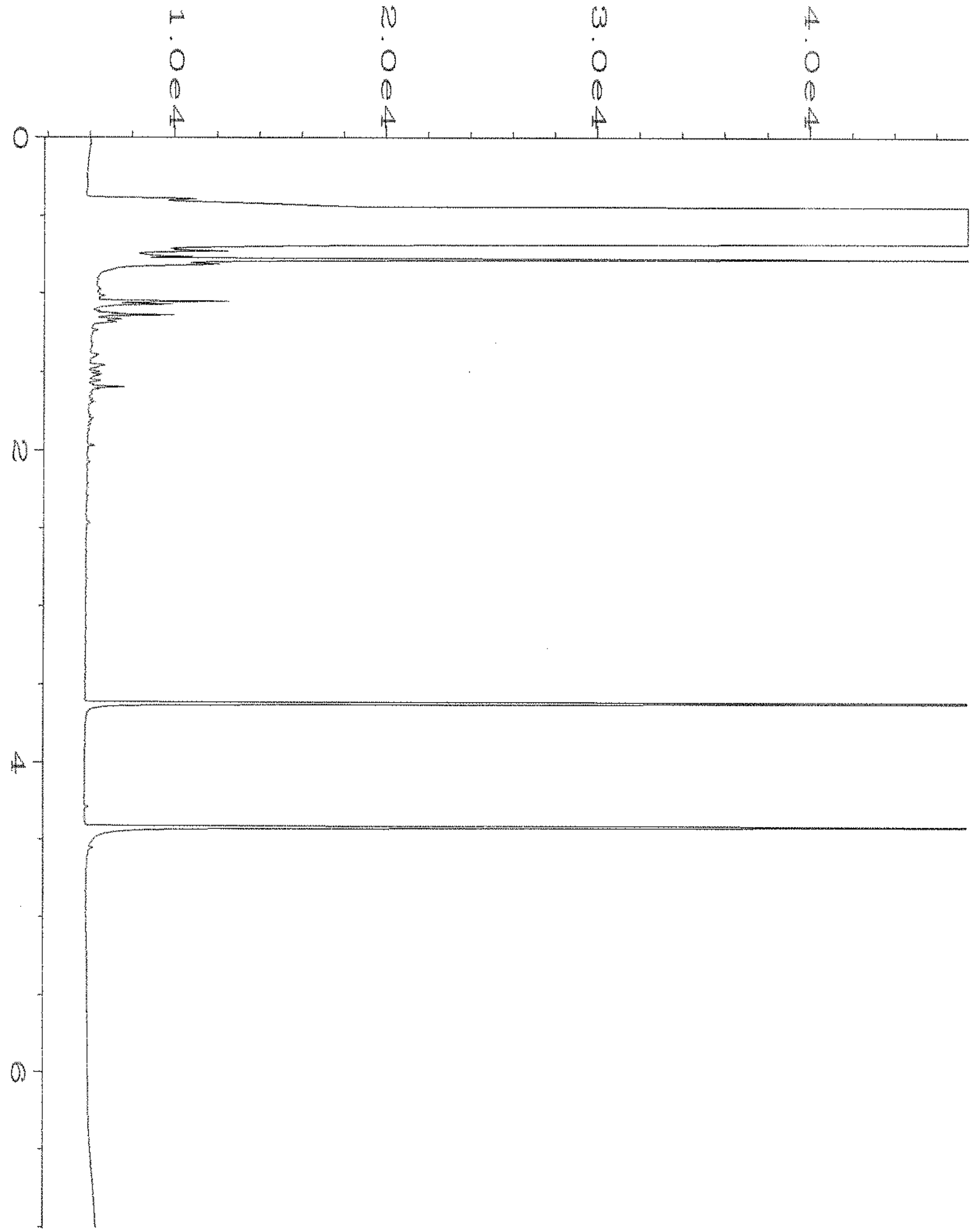


Data File Name : C:\HPCHEM\6\DATA\05-08-17\035F0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 705140-05
Run Time Bar Code:
Acquired on : 08 May 17 05:33 PM
Report Created on: 09 May 17 09:04 AM

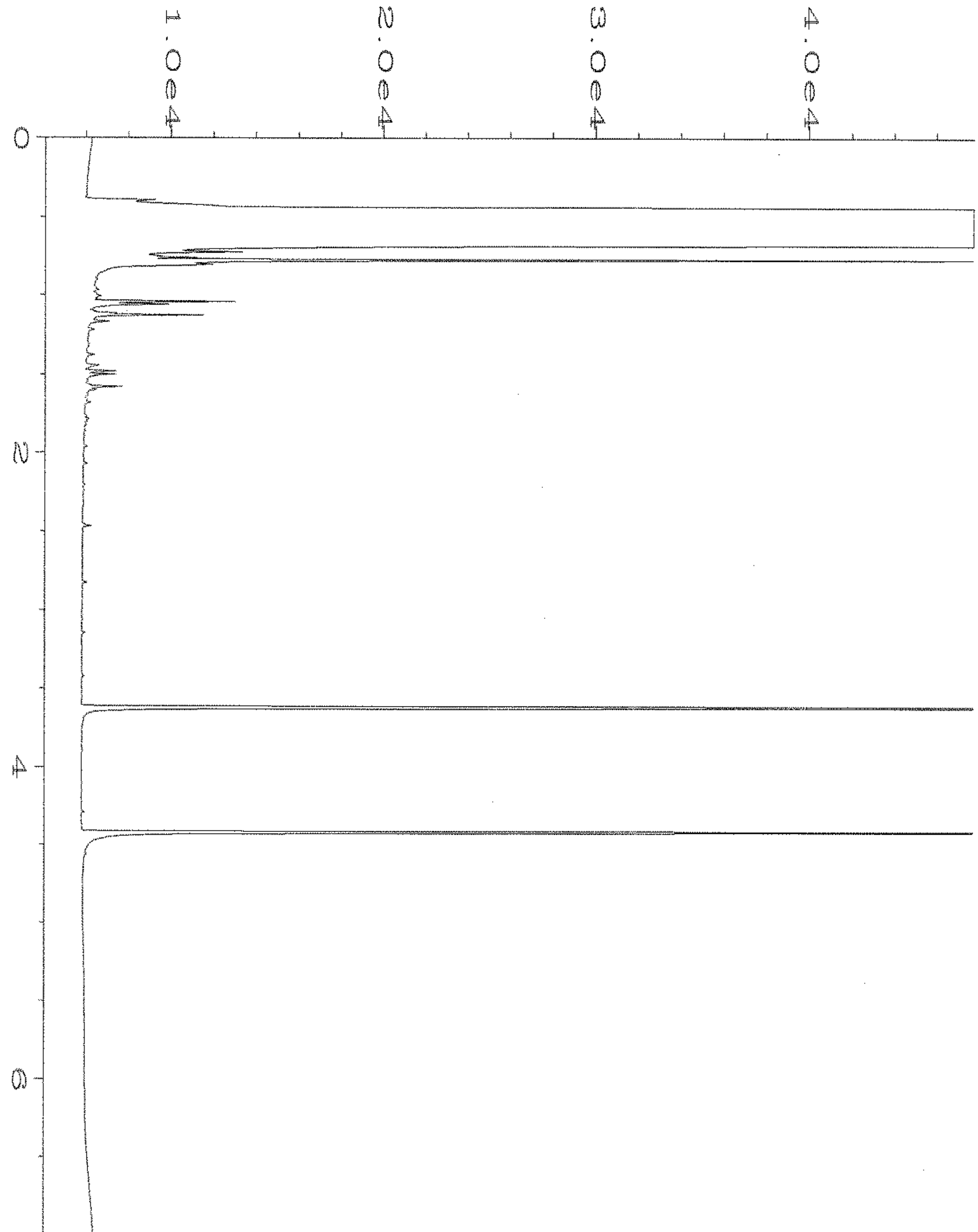
Page Number : 1
Vial Number : 35
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH



Data File Name	: C:\HPCHEM\6\DATA\05-08-17\036F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 36
Sample Name	: 705140-06	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 17 05:44 PM	Instrument Method	: DX.MTH
Report Created on	: 09 May 17 09:04 AM	Analysis Method	: DX.MTH

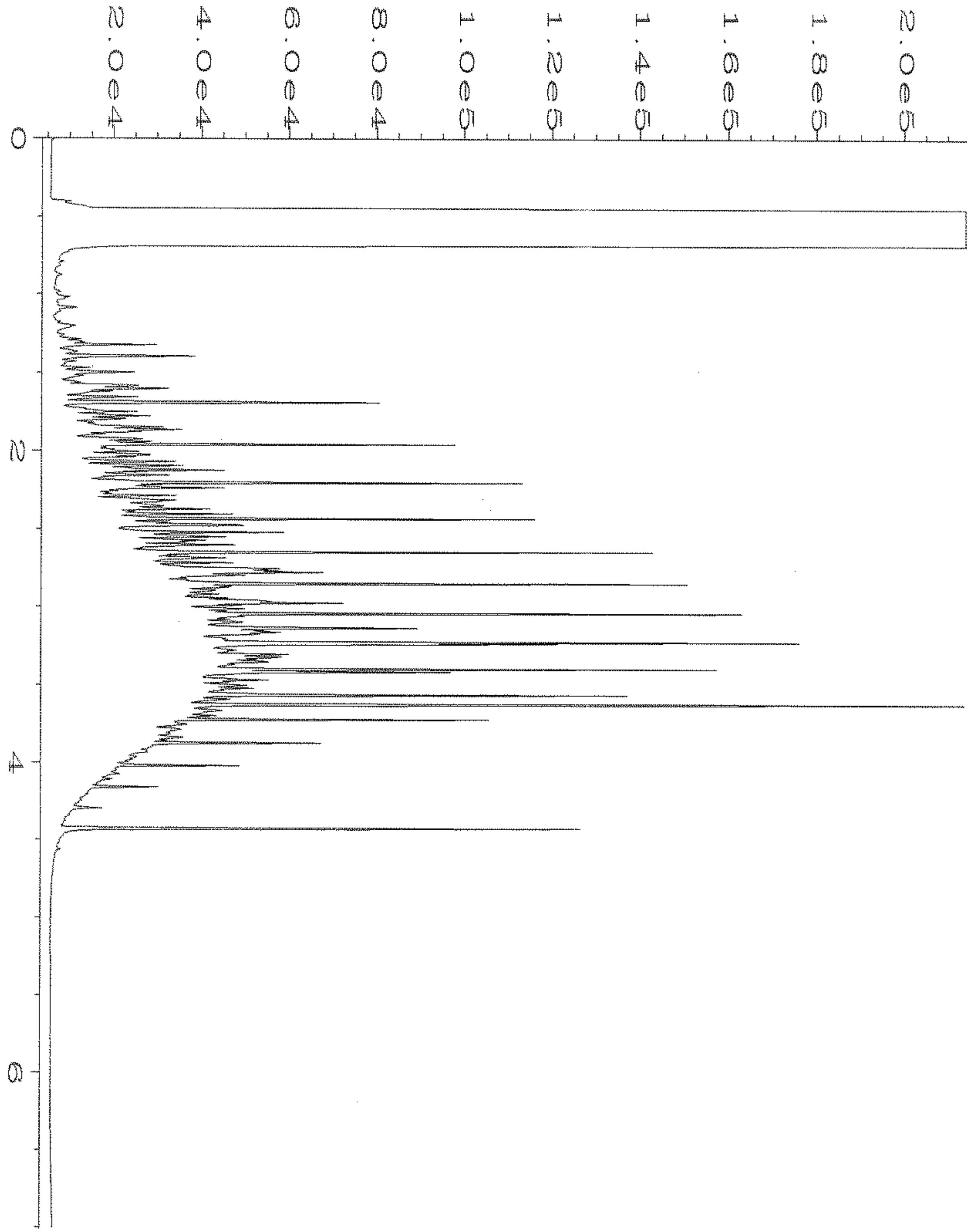


Data File Name	: C:\HPCHEM\6\DATA\05-08-17\037F0701.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 37
Sample Name	: 705140-07	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 7
Acquired on	: 08 May 17 05:55 PM	Instrument Method	: DX.MTH
Report Created on	: 09 May 17 09:04 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\6\DATA\05-08-17\027F0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 07-1000 mb
Run Time Bar Code:
Acquired on : 08 May 17 04:09 PM
Report Created on: 09 May 17 09:05 AM

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



Data File Name	: C:\HPCHEM\6\DATA\05-08-17\003F0201.D			
Operator	: mwdl	Page Number	:	1
Instrument	: GC #6	Vial Number	:	3
Sample Name	: 500 Dx 49-188E	Injection Number	:	1
Run Time Bar Code:		Sequence Line	:	2
Acquired on	: 08 May 17 07:05 AM	Instrument Method:		DX.MTH
Report Created on:	09 May 17 09:05 AM	Analysis Method	:	DX.MTH

705140

SAMPLE CHAIN OF CUSTODY

ME 05/08/17 | 1 D0:

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Toc

PROJECT NAME/NO. 18th and Jackson

PO # 0811-005

REMARKS

Page # 1 of 1

TURNAROUND TIME
Standard (2 Weeks)
RUSH 24 hr (5/9, 10 AM)
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EP-ESW01-02	EP	2	01	5/8/17	1225	Soil	1	X								
EP-NSW01-02		2	02		1226			X								
EP-B02-07.5		7.5	03		1315			X								
EP-B03-07		7	04		1320			X								
EP-WSW02-03		3	05		1340			X								
EP-WSW03-03		3	06		1345			X								
EP-SSW01-03		3	07		1415			X								

QT 5/8/17

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:	Clare Toc	Clare Tochilin	SoundEarth	5/8/17	1510
Received by:	Dew	Do. vo	F&BI	5-8-17	15.16
Relinquished by:					
Received by:			Samples received at 4 °C		

FORMS\COC\COC.DOC

Friedman & Bruya, Inc. #705380

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

May 25, 2017

Rob Roberts, Project Manager
SoundEarth Strategies
2811 Fairview Ave. East, Suite 2000
Seattle, WA 98102

Dear Mr Roberts:

Included are the results from the testing of material submitted on May 22, 2017 from the SOU_0811-005_ 20170522, F&BI 705380 project. There are 4 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
c: Clare Tochilin
SOU0525R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 22, 2017 by Friedman & Bruya, Inc. from the SoundEarth Strategies SOU_0811-005_ 20170522, F&BI 705380 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	SoundEarth Strategies
705380 -01	EP-WSW04-04
705380 -02	EP-WSW05-04
705380 -03	EP-B04-09

All quality control requirements were acceptable.

Date of Report: 05/25/17
Date Received: 05/22/17
Project: SOU_ 0811-005_ 20170522, F&BI 705380
Date Extracted: 05/22/17
Date Analyzed: 05/22/17

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 53-144)
EP-WSW04-04 705380-01	<50	<250	106
EP-WSW05-04 705380-02	<50	<250	106
EP-B04-09 705380-03	<50	<250	94
Method Blank 07-1119 MB	<50	<250	134

Date of Report: 05/25/17
Date Received: 05/22/17
Project: SOU_ 0811-005_ 20170522, F&BI 705380

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

Laboratory Code: 705363-01 (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	104	116	64-133	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	103	58-147

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.

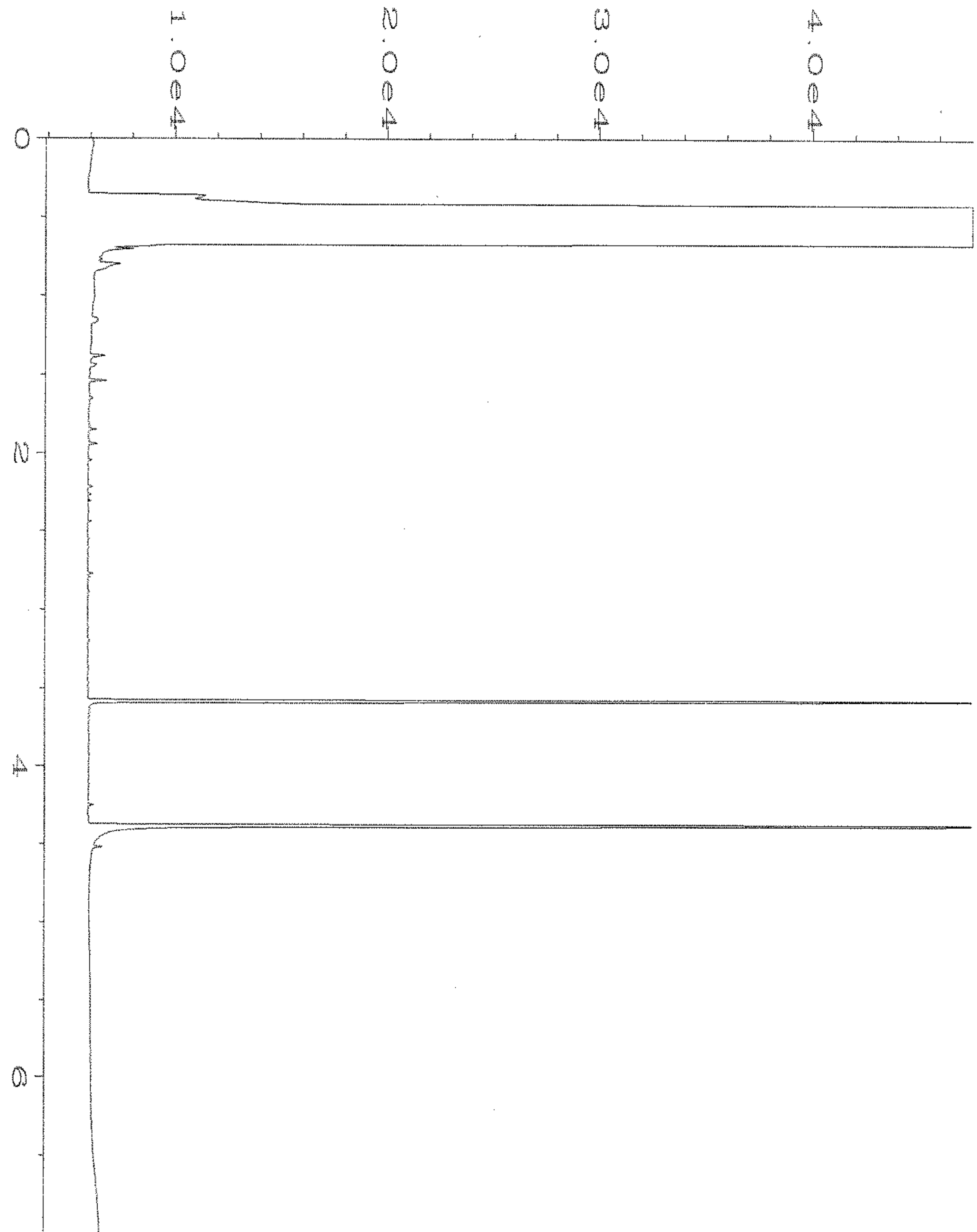
nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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.

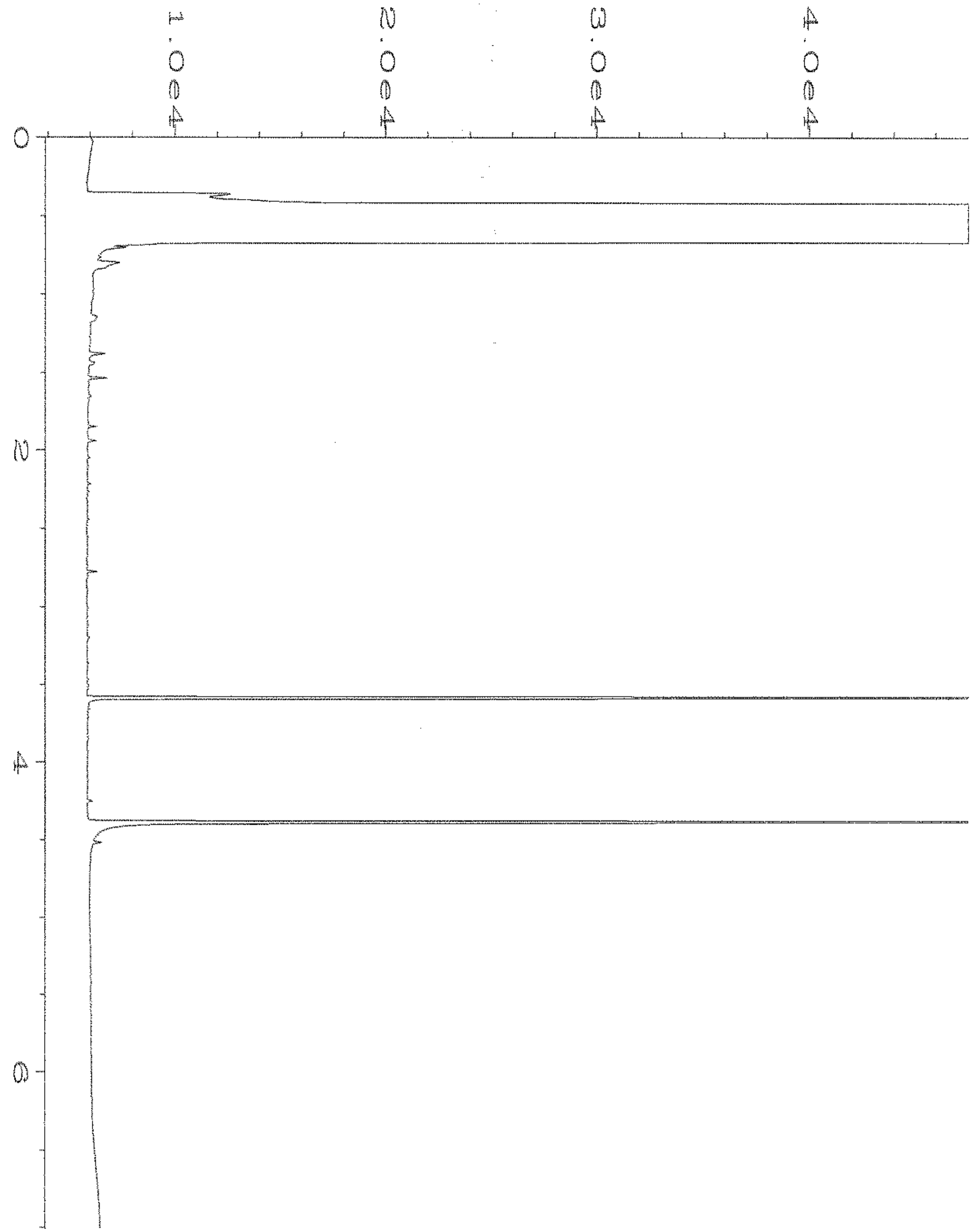
ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

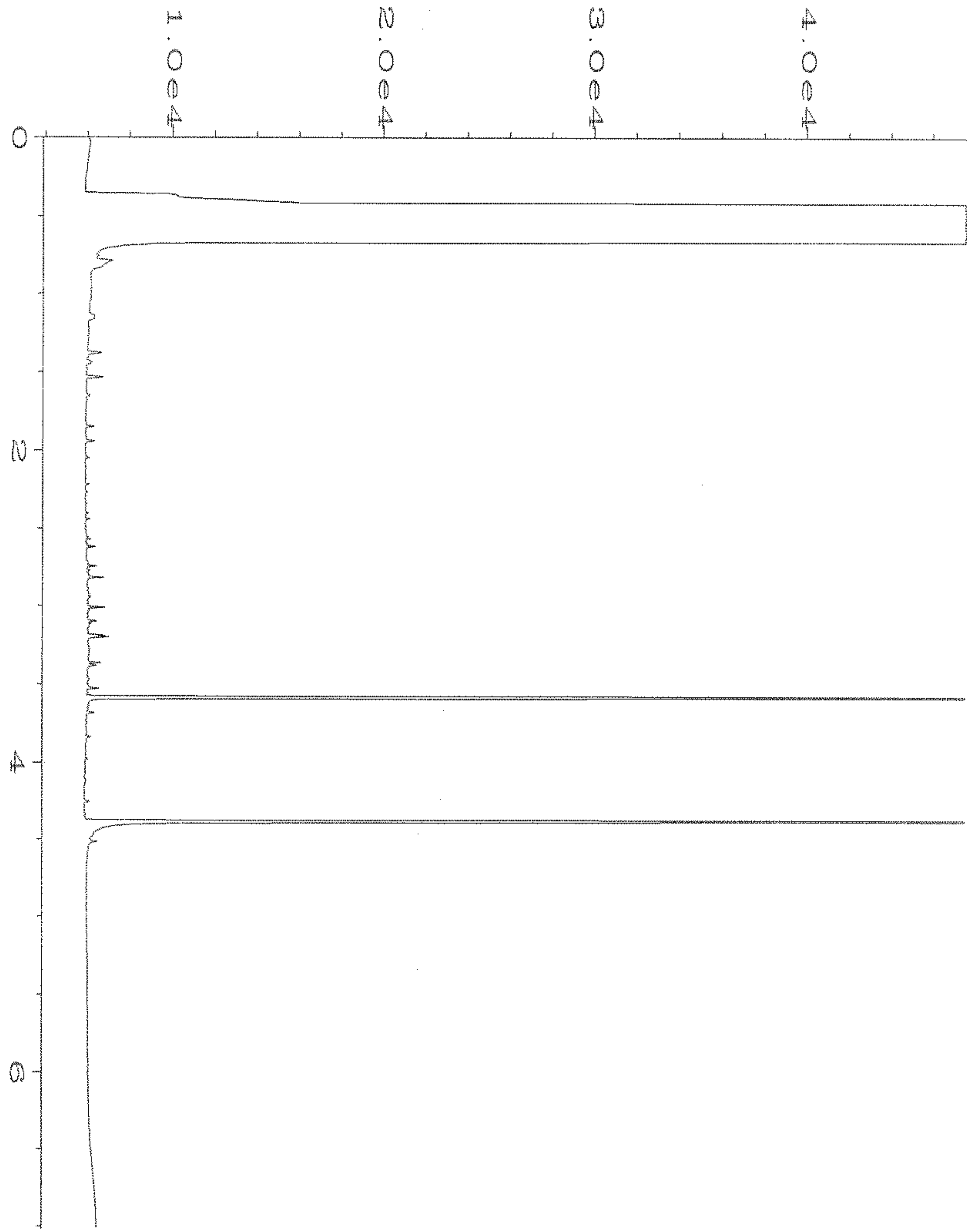


Data File Name	: C:\HPCHEM\6\DATA\05-22-17\026F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 26
Sample Name	: 705380-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 22 May 17 05:24 PM	Instrument Method:	DX.MTH
Report Created on:	23 May 17 08:32 AM	Analysis Method	: DX.MTH

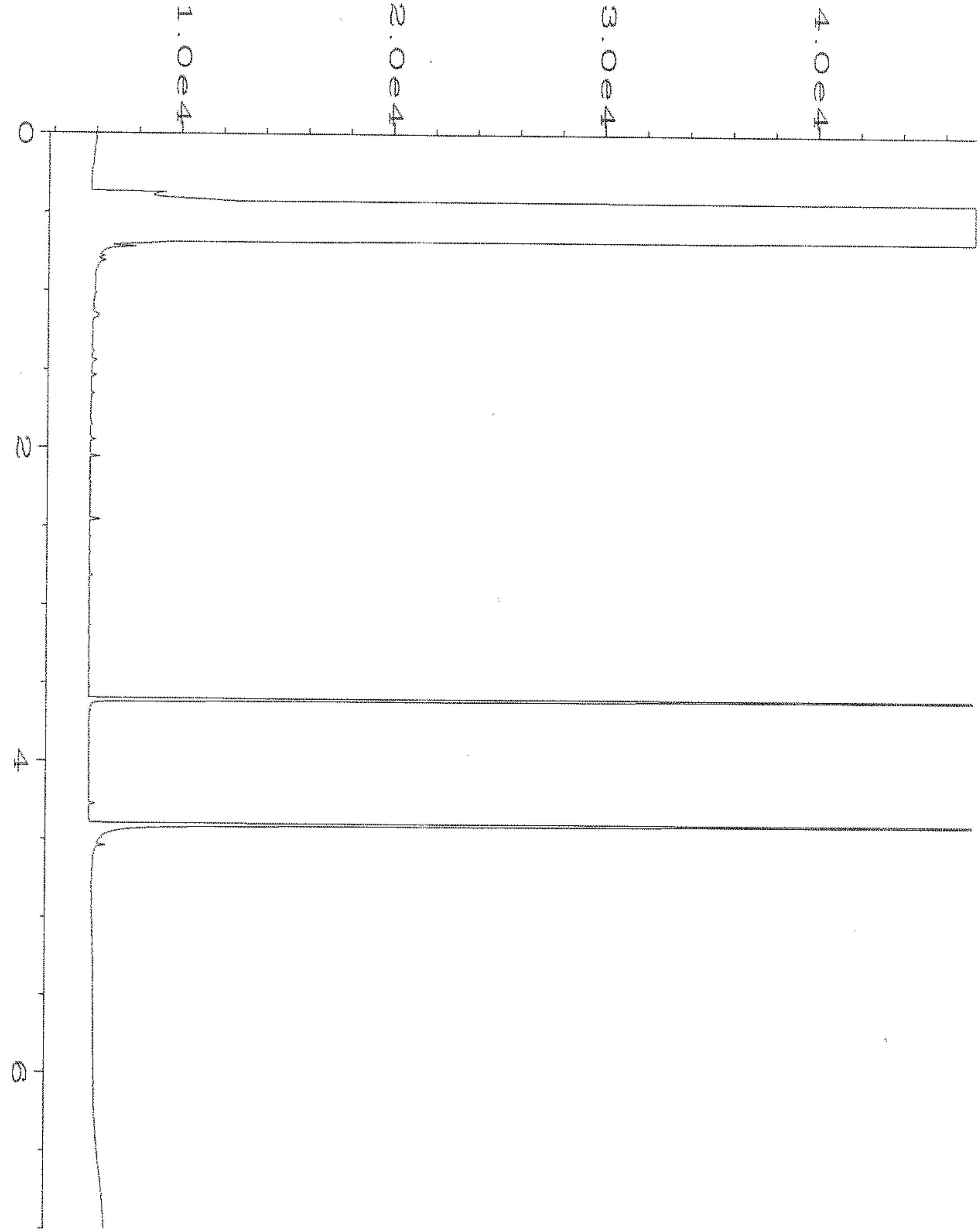


Data File Name   : C:\HPCHEM\6\DATA\05-22-17\027F0501.D
Operator   : mwdl
Instrument   : GC #6
Sample Name   : 705380-02
Run Time Bar Code:
Acquired on   : 22 May 17   05:35 PM
Report Created on: 23 May 17   08:32 AM

Page Number   : 1
Vial Number   : 27
Injection Number : 1
Sequence Line   : 5
Instrument Method: DX.MTH
Analysis Method   : DX.MTH

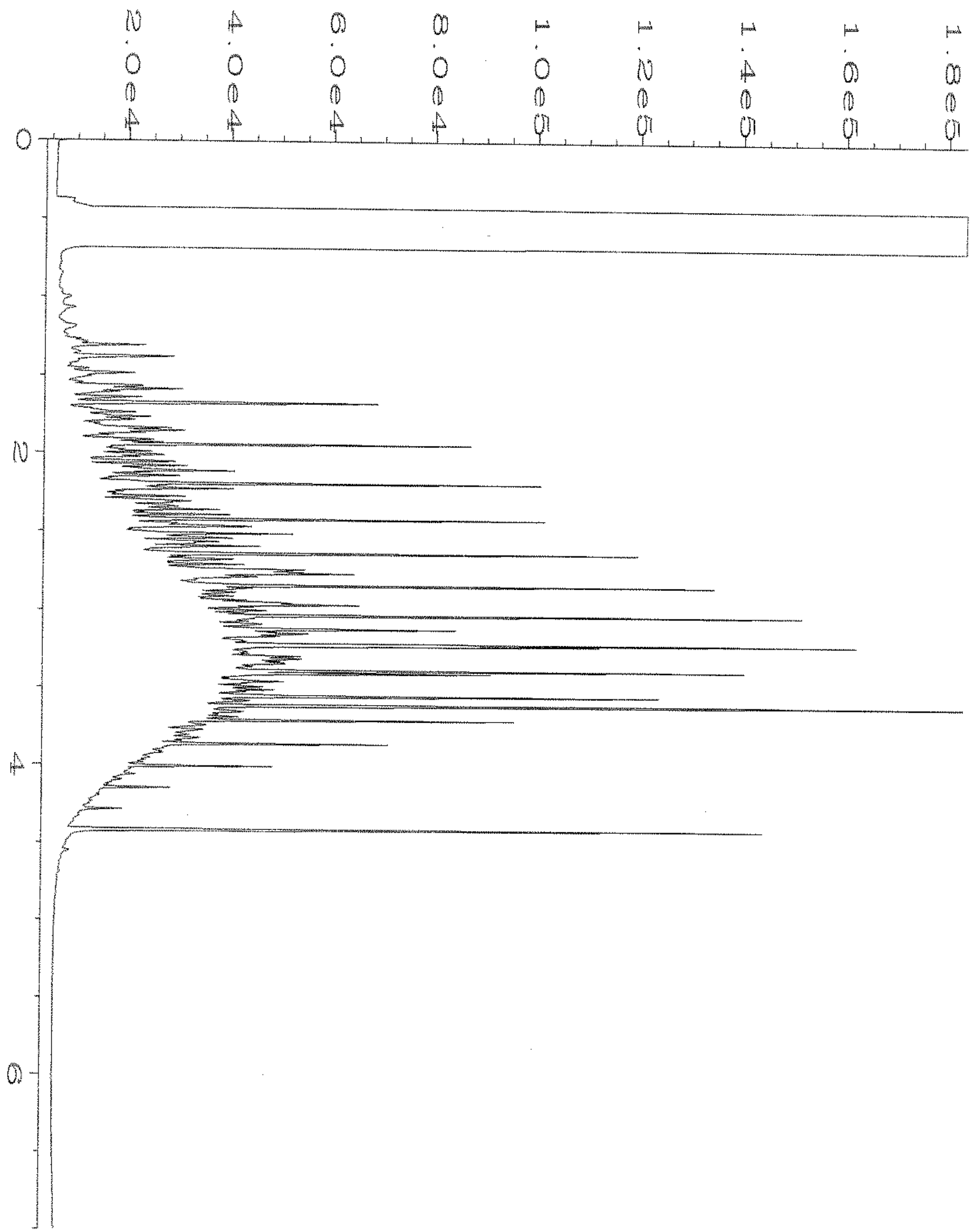


Data File Name	: C:\HPCHEM\6\DATA\05-22-17\028F0501.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 28
Sample Name	: 705380-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 22 May 17 05:46 PM	Instrument Method:	DX.MTH
Report Created on:	23 May 17 08:32 AM	Analysis Method	: DX.MTH



Data File Name : C:\HPCHEM\6\DATA\05-22-17\006F0301.D
Operator : mwdl
Instrument : GC #6
Sample Name : 07-1119 mb
Run Time Bar Code:
Acquired on : 22 May 17 08:52 AM
Report Created on: 23 May 17 08:33 AM

Page Number : 1
Vial Number : 6
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DX.MTH




```
Data File Name    : C:\HPCHEM\6\DATA\05-22-17\003F0201.D
Operator          : mwdl
Instrument        : GC #6
Sample Name       : 500 Dx 49-188E
Run Time Bar Code:
Acquired on       : 22 May 17   06:51 AM
Report Created on: 23 May 17   08:33 AM
```

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

705380

SAMPLE CHAIN OF CUSTODY ME 05-22-17

E02

Page # 1 of 1

Send Report to Rob Roberts; Clare Tochilin

Company SoundEarth Strategies, Inc.

Address 2811 Fairview Avenue E, Suite 2000

City, State, ZIP Seattle, Washington 98102

Phone # 206-306-1900 Fax # 206-306-1907

SAMPLERS (signature) Clare Tochilin

PROJECT NAME/NO.	PO #
18th and Jackson	0811-005

REMARKS

TURNAROUND TIME
Standard (2 Weeks)
RUSH 24 hr (10 Am, 5/23)
Rush charges authorized by:

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

Sample ID	Sample Location	Sample Depth	Lab ID	Date Sampled	Time Sampled	Matrix	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX by 8021B	VOCs by 8260	SVOCs by 8270				Notes
EP-WSW04-04	WSW	4	01	5/22/17	0930	Soil	1	X								
EP-WSW05-04	WSW	4	02			0955			X							
EP-B04-09	8	9	03			1000			X							

CJT 5/22/17

Samples received at 4 °C

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Clare Tochilin	Clare Tochilin	SoundEarth	5/22/17	1150
Received by:		HONG NGUYEN	FBI		
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

APPENDIX C
TERRESTRIAL ECOLOGICAL EVALUATION

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Modera Jackson Property	
Facility/Site Address: 1803 to 1905 South Jackson Street	
Facility/Site No:	VCP Project No.:

Step 2: IDENTIFY EVALUATOR		
Please identify below the person who conducted the evaluation and their contact information.		
Name: Clare Tochilin		Title: Project Hydrogeologist
Organization: SoundEarth Strategies, Inc.		
Mailing address: 2811 Fairview Avenue East, Suite 2000		
City: Seattle	State: WA	Zip code: 98102
Phone: 206-306-1900	Fax: 206-306-1907	E-mail: ctochilin@soundearthinc.com

ECY 090-300 (07/2015) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Toxic Cleanup Program 360-407-7170. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

■ Yes — *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown — *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☒ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

± "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

"Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes — *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown — *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes — *If you answered **"YES,"** then answer **Question 3** below.*

☐ No — *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes — *If you answered **"YES,"** then answer **Question 4** below.*

☐ No — *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered* ***"YES,"*** *then answer* ***Question 2*** *below.*

☐ No *If you answered* ***"NO,"*** *then identify the reason here and then skip to* ***Question 5*** *below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to* ***Question 5*** *below.*

☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer* ***Questions 3 and 4*** *below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

☐ Literature surveys.

☐ Soil bioassays.

☐ Wildlife exposure model.

☐ Biomarkers.

☐ Site-specific field studies.

☐ Weight of evidence.

☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

☐ Confirmed there was no problem.

☐ Confirmed there was a problem and established site-specific cleanup levels.

5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

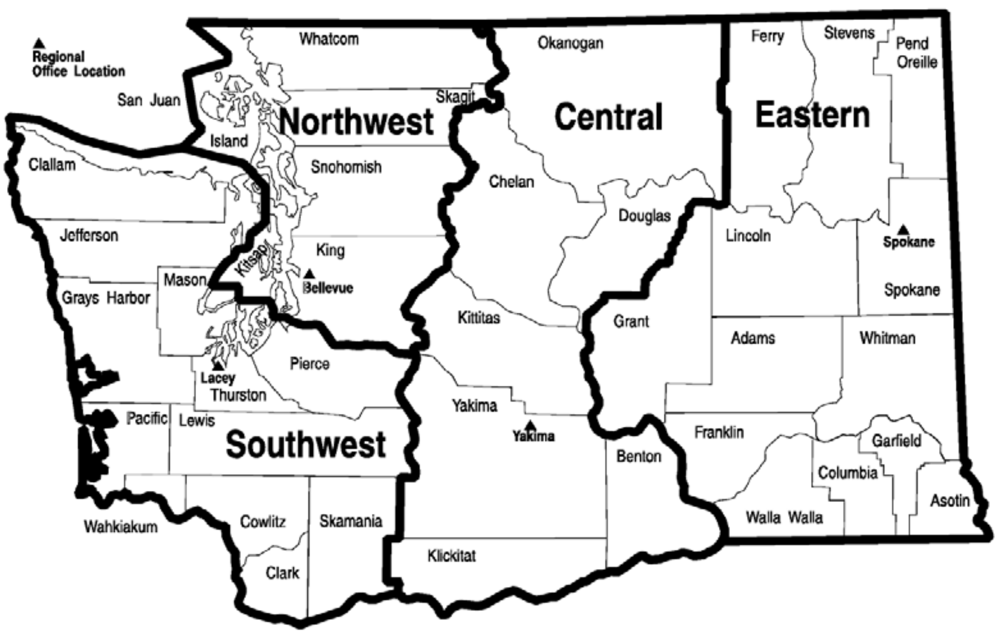
☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295



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APPENDIX D
WELL DECOMMISSIONING DOCUMENTATION

MONITORING WELL REPORT

Well ID# BJY 047

Start Card # AE 41000

(1) OWNER/PROJECT

WELL NO.

Name Seattle Borings

Address 1803 S Jackson St

City Seattle State WA Zip 98144

(2) TYPE OF WORK

- [ ] New construction
- [ ] Alteration (Repair/Recondition)
- [ ] Conversion
- [ ] Deepening
- [x] Abandonment

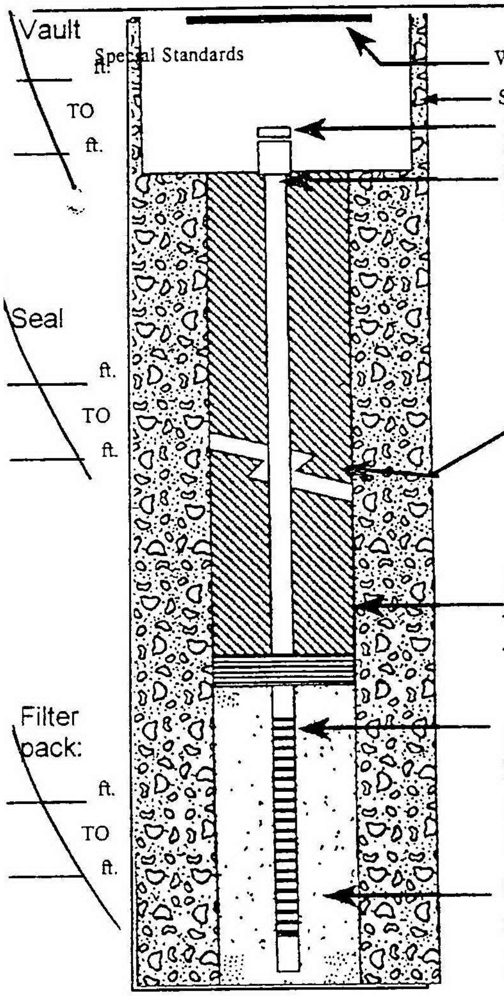
(3) DRILLING METHOD

- [ ] Rotary Air
- [ ] Rotary Mud
- [ ] Cable
- [ ] Hollow Stem Auger
- [ ] Other

(4) BORE HOLE CONSTRUCTION:

Special Standards Yes [ ] No [x]

Depth of Completed Well 38 ft.



Casing diameter 2"

Material PVC

Welded [ ] Threaded [x] Glued [ ]

Well Seal:

Material Bentonite

Amount Chips

Grout weight

Borehole diameter:

8¼ in. from 0 ft. to 38 ft.

in. from ft. to ft.

Bentonite plug at least 3 ft. thick

Screen:

Material

From ft. to

Slot size in.

Filter pack:

Material

Size

(5) WELL TESTS:

- [ ] Pump
- [ ] Bailer
- [ ] Air
- [ ] Flowing Artesian

Permeability

Yield GPM

Conductivity

PH

Temperature of water

OF/C Depth artesian flow found ft.

Was water analysis done? [ ] Yes [ ] No

By whom?

Depth of strata to be analyzed. From ft. to ft.

Remarks:

Name Of Supervising Geologist/Engineer Sound Earth

(6) LOCATION OF WELL By *legal description:*

County King Latitude Longitude

Township 24N (N or S) Range 4E (E or W) Section 4

SW 1/4 of NW 1/4 of above section.

Street address of well location 1901 S Jackson St Seattle

Tax lot number of well location

(7) STATIC WATER LEVEL:

Ft. below land surface. Date

Artesian Pressure lb/sq. in. Date

(8) WATER BEARING ZONES:

Depth at which water was first found

From	To	Est. Flow Rate	SWL

(9) WELL LOG:

Ground Elevation

Material	From	To	SWL
backfilled from			
bottom to top w/			
bentonite chips	0	38	

RECEIVED

FEB 01 2017

DEPT OF ECOLOGY

NWRO - WR

Date started 1/10/17 Completed 1/10/17

WELL CONSTRUCTION CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Type or Print Name Jeremey Carlson License No. 2989

Trainee Name License No.

Drilling Company Holocene Drilling Inc.

(Signed) License No. 2989

Address 11412 62nd Ave E Puyallup, WA. 98373

Registration No. HOLOCDI044KH Date

APPENDIX E
DISPOSAL DOCUMENTATION

Ticket List By Customer\Order\Product

Date From 02/01/2017 **To** 02/28/2017
Location(s 1875
Order: 41097521

Date	TicketNo	Delivery Address	Vehicle	TimeIn	TicketTime	Qty	Unit	Ship
Scale	Tickets							
SOUTH JACKSON STREET DEV-VARIOUS VARIOU								
41097521								
1192506								
2/10/17	1875473536	P:75:18TH & JACKSON PROPER	1875-8,EVERETT GENERIC	8:52:26	9:16:26	27.77	TON	R
Product Totals	**1**				**Qt**	**27.77**	**TON**	
Order Totals	**1**				**Qt**	**27.77**	**TON**	
Customer Totals	**1**				**Qt**	**27.77**	**TON**	

Grand Total	**1**	**Qty**	**27.77**	**TON**

Cash

Void

Ticket List By Customer\Order\Product

Date From 02/01/2017 **To** 02/28/2017
Location(s 1876
Order: 41097651

Date	TicketNo	Delivery Address	Vehicle	TimeIn	TicketTime	Qty	Unit	S h i p
Scale	Tickets							
SOUTH JACKSON STREET DEV-VARIOUS VARIOL								
41097651								
1192508								
2/10/17	1876090920	P:76:18TH & JACKSON PROPER	1876-7,EVERETT SOIL GENERIC	9:13:01	9:32:37	26.64	TON	R
2/10/17	1876090923	P:76:18TH & JACKSON PROPER	1876-9,EVERETT SOIL GENERIC	10:38:21	10:59:44	30.46	TON	R
2/10/17	1876090931	P:76:18TH & JACKSON PROPER	1875-8,EVERETT GENERIC	0:00:00	13:57:59	32.25	TON	R
Product Totals	**3**				**Qt**	**89.35**	**TON**	
Order Totals	**3**				**Qt**	**89.35**	**TON**	
Customer Totals	**3**				**Qt**	**89.35**	**TON**	
Grand Total		**3**			**Qty**	**89.35**	**TON**	

Cash

Void

Detail Customer Activity Report

All Ticket Types
History and Waiting

February 01, 2017 to May 30, 2017
Specific Customer(s) : 333439

All Facilities

333439- South Jackson Street Development LLC

Ticket Date	Facility & Ticket Number		Contract	Truck #	Container	Material	Material Rate		Billing Quantity		Material Total	Tax Total	Total
02/09/2017 I	01	946242	LW-17033	SOIL		SW-CONT SOIL W/FUEL	45.00	F	17.31	TN	$778.95	$0.00	$778.95
02/09/2017 I	01	946246	LW-17033	SOIL		SW-CONT SOIL W/FUEL	45.00	F	9.26	TN	$416.70	$0.00	$416.70
05/22/2017 I	01	949947	LW-17033	01 FISCHER		SW-CONT SOIL W/FUEL	45.00	F	34.61	TN	$1,557.45	$0.00	$1,557.45
05/22/2017 I	01	949964	LW-17033	01 FISCHER		SW-CONT SOIL W/FUEL	45.00	F	37.55	TN	$1,689.75	$0.00	$1,689.75
05/22/2017 I	01	949984	LW-17033	01 FISCHER		SW-CONT SOIL W/FUEL	45.00	F	34.64	TN	$1,558.80	$0.00	$1,558.80

Tickets Reported: 5 Items Reported: 5

Customer Totals: $6,001.65 $0.00 $6,001.65

Material Summary	Weight Inbound	Weight Outbound		Volume Inbound	Volume Outbound		Count Inbound	Count Outbound	Billing Quantity		Material Total	Tax Total	Total
VH - SW-CONT SOIL W,	133.37	0.00	TN	0.00	0.00	YD	0.00	0.00	133.37	TN	$6,001.65	$0.00	$6,001.65

		Material Total	Tax Total	Total
Tickets Reported: 5 Items Reported: 5	Cash Totals:			
	Invoice Totals:	$6,001.65	$0.00	$6,001.65
	Report Totals:	$6,001.65	$0.00	$6,001.65

Pro-Vac
Clean Service and Tele-Scan

6822 - 112TH STREET E., PUYALLUP, WASHINGTON 98373
(253) 435-4328 · (888) 565-5665 – FAX (253) 435-5788

Work Order # 170210-012 Date 2/10/17

Customer Sound earth strategies

Job Address 1801 S Jackson

City, State, Zip Seattle WA Job Phone

Travel to Site		On Site		Dump Out Completed	Return To Shop
Start 11 am	Stop 1:20 pm	In 1:20 pm	Out 12:30 pm		

❑ ET ❑ TV ❑ SPILL ☑ PT ❑ GT ❑ SW

Operator Brian L	Laborer	Truck PV196

JOB DESCRIPTION

PT to pump Rain water from hole Excavation

DISPOSAL: ❑ ON SITE ☑ OFF SITE

LOCATION: Cathcart

Signature [illegible]

I agree to pay all the costs and fees charged for the services rendered as stated on this statement. **The terms are Net 10 days, 1½% on unpaid balance monthly.** If collected services are required, solely in the opinion of Pro Vac. to collect the debt, I agree to pay reasonable costs for collection including attorney fees and costs and any collection agency fees. If legal action is required the parties agree to the venue of the action will be Pierce County Superior Court, State of Washington. It is further agreed that any accounts past due will be assessed a late fee of one and a half percent (1.5%) per month. cumulative.

CUSTOMER

PRO-VAC

6622 112th Street East
Puyallup, WA 98373

B.O.L. # 58094

SHIPPING PAPER

DELIVERY DATE 2-10-17	JOB # 170210-012
SHIPPER / CUSTOMER Sound Earth strategies	POINT OF CONTACT
ADDRESS 1501 S Jackson	PHONE #
CITY, STATE, ZIP Seattle WA	
CARRIER / TRANSPORTER Pro-vac	PHONE #
CONSIGNEE / FACILITY cuthbert	POINT OF CONTACT
ADDRESS	PHONE #
CITY, STATE, ZIP Snohomish	

HM	US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	Containers No	Containers Type	Total Quantity	UOM	CHLOR	pH
A 1	Not Reg by DOT	1	TT	2500 gal			
B							
C							
D							

Special Handling Instruction and Additional Information:

Rain water

Placards Provided YES______ NO ✓

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

	SIGNATURE	MONTH	DAY	YEAR
(SHIPPER) PRINT OR TYPE NAME X Clan Forbes	X [illegible]	2	10	17
(CARRIER/TRANSPORTER) PRINT OR TYPE NAME X Brian Lindemann	X [illegible]	2	10	17
(CONSIGNEE/FACILITY) PRINT OR TYPE NAME X	X			

SHIPPER